

=> file registry

FILE REGISTRY ENTERED AT 15:45:14 ON 11 JAN 2006
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Property values tagged with IC are from the ZIC/VINITI data file
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STRUCTURE FILE UPDATES: 10 JAN 2006 HIGHEST RN 871658-99-0
DICTIONARY FILE UPDATES: 10 JAN 2006 HIGHEST RN 871658-99-0

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2005

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

*
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added, *
* effective March 20, 2005. A new display format, IDERL, is now *
* available and contains the CA role and document type information. *
*

Structure search iteration limits have been increased. See HELP SLIMITS
for details.

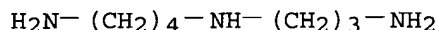
REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

=> d ide L1

L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2006 ACS on STN
RN 124-20-9 REGISTRY
ED Entered STN: 16 Nov 1984
CN 1,4-Butanedi-amine, N-(3-aminopropyl)- (8CI, 9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Spermidine (6CI)
OTHER NAMES:
CN 1,5,10-Triazadecane
CN 1,8-Diamino-4-azaoctane
CN 4-Azaoctane-1,8-diamine
CN N-(3-Aminopropyl)-1,4-butanedi-amine
CN N-(3-Aminopropyl)-1,4-diaminobutane
CN N-(3-Aminopropyl)-4-aminobutylamine
CN N-(4-Aminobutyl)-1,3-diaminopropane
CN Spermidin
FS 3D CONCORD
MF C7 H19 N3
CI COM
LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOSIS, BIOTECHNO, CA, CABA,
CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM,

DDFU, DETHERM*, DRUGU, EMBASE, GMELIN*, IFICDB, IFIPAT, IFIUDB, IPA,
MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PIRA, PROMT, RTECS*,
SPECINFO, SYNTHLINE, TOXCENTER, USPAT2, USPATFULL
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

9279 REFERENCES IN FILE CA (1907 TO DATE)
278 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
9290 REFERENCES IN FILE CAPLUS (1907 TO DATE)
86 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> d stat que L3

L2 STR



NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 10

STEREO ATTRIBUTES: NONE
L3 118 SEA FILE=REGISTRY FAM FUL L2

100.0% PROCESSED 4154 ITERATIONS
SEARCH TIME: 00.00.01

118 ANSWERS

*Family structure search
of spermidine*

=> => file caplus

FILE 'CAPLUS' ENTERED AT 15:48:50 ON 11 JAN 2006
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*AUTHOR
SEARCH*

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FILE COVERS 1907 - 11 Jan 2006 VOL 144 ISS 3

FILE LAST UPDATED: 10 Jan 2006 (20060110/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply.
They are available for your review at:

<http://www.cas.org/infopolicy.html>

'OBI' IS DEFAULT SEARCH FIELD FOR 'CAPLUS' FILE

=> d que nos L40

```
L36      103 SEA FILE=CAPLUS ABB=ON  PLU=ON  RINALDI F?/AU
L37       6 SEA FILE=CAPLUS ABB=ON  PLU=ON  SORBELLINI E?/AU
L38       7 SEA FILE=CAPLUS ABB=ON  PLU=ON  GATTI V?/AU
L39       5 SEA FILE=CAPLUS ABB=ON  PLU=ON  MARCHIORETTO D?/AU
L40       1 SEA FILE=CAPLUS ABB=ON  PLU=ON  L36 AND L37 AND L38 AND L39
```

=> d que nos L41

```
L36      103 SEA FILE=CAPLUS ABB=ON  PLU=ON  RINALDI F?/AU
L37       6 SEA FILE=CAPLUS ABB=ON  PLU=ON  SORBELLINI E?/AU
L38       7 SEA FILE=CAPLUS ABB=ON  PLU=ON  GATTI V?/AU
L39       5 SEA FILE=CAPLUS ABB=ON  PLU=ON  MARCHIORETTO D?/AU
L41       7 SEA FILE=CAPLUS ABB=ON  PLU=ON  (L36 AND (L37 OR L38 OR L39)
OR (L37 AND (L38 OR L39)) OR (L38 AND L39))
```

=> s l40-L41

```
L168      7 (L40 OR L41)
```

=> file medline

FILE 'MEDLINE' ENTERED AT 15:48:55 ON 11 JAN 2006

FILE LAST UPDATED: 10 JAN 2006 (20060110/UP). FILE COVERS 1950 TO DATE.

On December 11, 2005, the 2006 MeSH terms were loaded.

The MEDLINE reload for 2006 will soon be available. For details
on the 2005 reload, enter HELP RLOAD at an arrow prompt (=>).
See also:

<http://www.nlm.nih.gov/mesh/>
http://www.nlm.nih.gov/pubs/techbull/nd04/nd04_mesh.html
http://www.nlm.nih.gov/pubs/techbull/nd05/nd05_med_data_changes.html
http://www.nlm.nih.gov/pubs/techbull/nd05/nd05_2006_MeSH.html

OLDMEDLINE is covered back to 1950.

MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the
MeSH 2006 vocabulary.

This file contains CAS Registry Numbers for easy and accurate

=> d que nos L42

```
L36      103 SEA FILE=CAPLUS ABB=ON  PLU=ON  RINALDI F?/AU
L37       6 SEA FILE=CAPLUS ABB=ON  PLU=ON  SORBELLINI E?/AU
L38       7 SEA FILE=CAPLUS ABB=ON  PLU=ON  GATTI V?/AU
```

L39 5 SEA FILE=CAPLUS ABB=ON PLU=ON MARCHIORETTO D?/AU
 L42 0 SEA FILE=MEDLINE ABB=ON PLU=ON L36 AND L37 AND L38 AND L39

=> d que nos L43

L36 103 SEA FILE=CAPLUS ABB=ON PLU=ON RINALDI F?/AU
 L37 6 SEA FILE=CAPLUS ABB=ON PLU=ON SORBELLINI E?/AU
 L38 7 SEA FILE=CAPLUS ABB=ON PLU=ON GATTI V?/AU
 L39 5 SEA FILE=CAPLUS ABB=ON PLU=ON MARCHIORETTO D?/AU
 L43 0 SEA FILE=MEDLINE ABB=ON PLU=ON (L36 AND (L37 OR L38 OR L39))
 OR (L37 AND (L38 OR L39)) OR (L38 AND L39)

=> d que nos L97

L93 109 SEA FILE=MEDLINE ABB=ON PLU=ON RINALDI F?/AU
 L94 2 SEA FILE=MEDLINE ABB=ON PLU=ON SORBELLINI E?/AU
 L95 16 SEA FILE=MEDLINE ABB=ON PLU=ON GATTI V?/AU
 L96 1 SEA FILE=MEDLINE ABB=ON PLU=ON MARCHIORETTO D?/AU
 L97 0 SEA FILE=MEDLINE ABB=ON PLU=ON (L93 AND (L94 OR L95 OR L96))
 OR (L94 AND (L95 OR L96)) OR (L95 AND L96)

=> d que nos L98

L68 71376 SEA FILE=MEDLINE ABB=ON PLU=ON ?HAIR?
 L93 109 SEA FILE=MEDLINE ABB=ON PLU=ON RINALDI F?/AU
 L94 2 SEA FILE=MEDLINE ABB=ON PLU=ON SORBELLINI E?/AU
 L95 16 SEA FILE=MEDLINE ABB=ON PLU=ON GATTI V?/AU
 L96 1 SEA FILE=MEDLINE ABB=ON PLU=ON MARCHIORETTO D?/AU
 L98 0 SEA FILE=MEDLINE ABB=ON PLU=ON L68 AND (L93 OR L94 OR L95 OR
 L96)

=> d que nos L99

L70 3863 SEA FILE=MEDLINE ABB=ON PLU=ON SPERMIDINE/CT
 L93 109 SEA FILE=MEDLINE ABB=ON PLU=ON RINALDI F?/AU
 L94 2 SEA FILE=MEDLINE ABB=ON PLU=ON SORBELLINI E?/AU
 L95 16 SEA FILE=MEDLINE ABB=ON PLU=ON GATTI V?/AU
 L96 1 SEA FILE=MEDLINE ABB=ON PLU=ON MARCHIORETTO D?/AU
 L99 0 SEA FILE=MEDLINE ABB=ON PLU=ON L70 AND (L93 OR L94 OR L95 OR
 L96)

=> d que nos L100

L77 7091 SEA FILE=MEDLINE ABB=ON PLU=ON ALOPECIA+NT/CT
 L93 109 SEA FILE=MEDLINE ABB=ON PLU=ON RINALDI F?/AU
 L94 2 SEA FILE=MEDLINE ABB=ON PLU=ON SORBELLINI E?/AU
 L95 16 SEA FILE=MEDLINE ABB=ON PLU=ON GATTI V?/AU
 L96 1 SEA FILE=MEDLINE ABB=ON PLU=ON MARCHIORETTO D?/AU
 L100 1 SEA FILE=MEDLINE ABB=ON PLU=ON L77 AND (L93 OR L94 OR L95 OR
 L96)

=> d que nos L101

L76 3425 SEA FILE=MEDLINE ABB=ON PLU=ON ?BALD?

L93 109 SEA FILE=MEDLINE ABB=ON PLU=ON RINALDI F?/AU
L94 2 SEA FILE=MEDLINE ABB=ON PLU=ON SORBELLINI E?/AU
L95 16 SEA FILE=MEDLINE ABB=ON PLU=ON GATTI V?/AU
L96 1 SEA FILE=MEDLINE ABB=ON PLU=ON MARCHIORETTO D?/AU
L101 0 SEA FILE=MEDLINE ABB=ON PLU=ON L76 AND (L93 OR L94 OR L95 OR
L96)

=> s L42 or L43 or L97-L101

L169 1 L42 OR L43 OR (L97 OR L98 OR L99 OR L100 OR L101)

=> file embase

FILE 'EMBASE' ENTERED AT 15:49:03 ON 11 JAN 2006
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FILE COVERS 1974 TO 6 Jan 2006 (20060106/ED)

EMBASE has been reloaded. Enter HELP RLOAD for details.

This file contains CAS Registry Numbers for easy and accurate
substance identification.

=> d que nos L106

L102 42 SEA FILE=EMBASE ABB=ON PLU=ON RINALDI F?/AU
L103 3 SEA FILE=EMBASE ABB=ON PLU=ON SORBELLINI E?/AU
L104 19 SEA FILE=EMBASE ABB=ON PLU=ON GATTI V?/AU
L105 0 SEA FILE=EMBASE ABB=ON PLU=ON MARCHIORETTO D?/AU
L106 0 SEA FILE=EMBASE ABB=ON PLU=ON L102 AND L103 AND L104 AND
L105

=> d que nos L107

L102 42 SEA FILE=EMBASE ABB=ON PLU=ON RINALDI F?/AU
L103 3 SEA FILE=EMBASE ABB=ON PLU=ON SORBELLINI E?/AU
L104 19 SEA FILE=EMBASE ABB=ON PLU=ON GATTI V?/AU
L105 0 SEA FILE=EMBASE ABB=ON PLU=ON MARCHIORETTO D?/AU
L107 0 SEA FILE=EMBASE ABB=ON PLU=ON (L102 AND (L103 OR L104 OR
L105)) OR (L103 AND (L104 OR L105)) OR (L104 AND L105)

=> s L106 or L107

L170 0 L106 OR L107

=> file biosis

FILE 'BIOSIS' ENTERED AT 15:49:08 ON 11 JAN 2006
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FILE COVERS 1969 TO DATE.
CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT
FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 4 January 2006 (20060104/ED)

=> d que nos L145

```
L140      48 SEA FILE=BIOSIS ABB=ON  PLU=ON  RINALDI F?/AU
L141      0 SEA FILE=BIOSIS ABB=ON  PLU=ON  SORBELLINI E?/AU
L142     30 SEA FILE=BIOSIS ABB=ON  PLU=ON  GATTI V?/AU
L143      3 SEA FILE=BIOSIS ABB=ON  PLU=ON  MARCHIORETTO D?/AU
L145      1 SEA FILE=BIOSIS ABB=ON  PLU=ON  (L140 AND ((L141 OR L142 OR
      L143))) OR (L141 AND (L142 OR L143)) OR (L142 AND L143)
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=> d que nos L167

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L2          STR
L3         118 SEA FILE=REGISTRY FAM FUL L2
L140      48 SEA FILE=BIOSIS ABB=ON  PLU=ON  RINALDI F?/AU
L141      0 SEA FILE=BIOSIS ABB=ON  PLU=ON  SORBELLINI E?/AU
L142     30 SEA FILE=BIOSIS ABB=ON  PLU=ON  GATTI V?/AU
L143      3 SEA FILE=BIOSIS ABB=ON  PLU=ON  MARCHIORETTO D?/AU
L146     6700 SEA FILE=BIOSIS ABB=ON  PLU=ON  L3
L147      SEL  PLU=ON  L3 1- CHEM :      153 TERMS
L148     9531 SEA FILE=BIOSIS ABB=ON  PLU=ON  L147
L149    70712 SEA FILE=BIOSIS ABB=ON  PLU=ON  ?HAIR?
L150     6751 SEA FILE=BIOSIS ABB=ON  PLU=ON  ?ALOPECIA?
L151     5417 SEA FILE=BIOSIS ABB=ON  PLU=ON  ?BALD?
L152     9531 SEA FILE=BIOSIS ABB=ON  PLU=ON  L146 OR L148
L167      1 SEA FILE=BIOSIS ABB=ON  PLU=ON  (L140 OR L141 OR L142 OR L143)
      AND (L149 OR L150 OR L151 OR L152)
```

=> s L145 or L167

L171 2 L145 OR L167

=> => dup rem L168 L169 L170 L171

L170 HAS NO ANSWERS

FILE 'CAPLUS' ENTERED AT 15:50:22 ON 11 JAN 2006

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FILE 'MEDLINE' ENTERED AT 15:50:22 ON 11 JAN 2006

FILE 'BIOSIS' ENTERED AT 15:50:22 ON 11 JAN 2006

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PROCESSING COMPLETED FOR L168

PROCESSING COMPLETED FOR L169

PROCESSING COMPLETED FOR L170

PROCESSING COMPLETED FOR L171

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L172      9 DUP REM L168 L169 L170 L171 (1 DUPLICATE REMOVED)
      ANSWERS '1-7' FROM FILE CAPLUS
      ANSWER '8' FROM FILE MEDLINE
      ANSWER '9' FROM FILE BIOSIS
```

=> d ibib abs hitind hitstr L172 1-7; d iall L172 8-9

L172 ANSWER 1 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:136516 CAPLUS

DOCUMENT NUMBER: 142:225260

TITLE: Use of spermine and/or spermidine against skin ageing
in dietary, pharmaceutical or cosmetic compositions

INVENTOR(S) : **Rinaldi, Fabio; Sorbellini, Elisabetta**; Baroni, Sergio; Benedusi, Anna
PATENT ASSIGNEE(S) : Giuliani S.p.A., Italy
SOURCE : PCT Int. Appl., 12 pp.
CODEN: PIXXD2
DOCUMENT TYPE : Patent
LANGUAGE : English
FAMILY ACC. NUM. COUNT : 1
PATENT INFORMATION :

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005013932	A1	20050217	WO 2004-EP8572	20040730
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

PRIORITY APPLN. INFO.: IT 2003-MI1570 A 20030731

AB The invention concerns the use of spermine and spermidine as active ingredients in the preparation of a composition for dietary, pharmaceutical or cosmetic use in humans for health and beauty of the skin and skin appendages, and related compns. for pharmaceutical or dietary or cosmetic use for administration to humans. A cosmetic emulsion contained spermidine trihydrochloride 0.02, Emulgade SE 4.5, Ceteareth 20, coco-caprylate/caprate 5 dicaprylyl ether 5, and water q.s. to 100 mL.

IC ICM A61K007-48
ICS A61K031-13; A23L001-305; A61P017-00

CC 62-4 (Essential Oils and Cosmetics)
Section cross-reference(s): 17, 63

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L172 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:264374 CAPLUS

DOCUMENT NUMBER: 141:400463

TITLE: Topical Biogenin for hair loss. Double-blind clinical studies

AUTHOR(S) : **Rinaldi, Fabio; Sorbellini, Elisabetta**; Bezzola, Paola

CORPORATE SOURCE: Unita Operativa di Dermatologia, Policlinico
Multimedica, Milan, Italy

SOURCE: Cosmetic Technology (Milano, Italy) (2004), 7(1), 9-14
CODEN: CTECFI; ISSN: 1127-6312

PUBLISHER: C.E.C. sas

DOCUMENT TYPE: Journal

LANGUAGE: Italian

AB A topical hair preparation, Biogenin, used for the prevention of hair loss was tested in clin. studies.

CC 62-3 (Essential Oils and Cosmetics)

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L172 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:610252 CAPLUS
 DOCUMENT NUMBER: 139:154938
 TITLE: Compositions containing spermidine for combating hair loss
 INVENTOR(S): **Rinaldi, Fabio; Sorbellini, Elisabetta; Gatti, Valter; Marchioretto, Danila Ingrid**
 PATENT ASSIGNEE(S): Giuliani S.p.A., Italy
 SOURCE: PCT Int. Appl., 20 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003063851	A1	20030807	WO 2003-EP519	20030117
WO 2003063851	C1	20040819		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2473160	AA	20030807	CA 2003-2473160	20030117
EP 1469843	A1	20041027	EP 2003-734680	20030117
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2005519069	T2	20050630	JP 2003-563544	20030117
US 2005147577	A1	20050707	US 2003-502284	20030117
PRIORITY APPLN. INFO.:			IT 2002-MI189	A 20020201
			WO 2003-EP519	W 20030117
AB The present invention relates to a novel use of the polyamine, spermidine, as an active principle in the preparation of a composition for pharmaceutical or dietetic use in men for combating hair loss. Thus, a composition contained methionine 300.00, vitamin C 90.00, polyphenols from Vitis vinifera 5.00, vitamin E 15.00, calcium pantothenate 9.00, zinc (as amino acid chelate) 7.50, vitamin B6 2.00, copper (as amino acid chelate) 1.25, folic acid 0.15, biotin 0.05, and spermidine 0.50 mg.				
IC ICM A61K031-13				
ICS A23L001-03; A61K007-06				
CC 63-6 (Pharmaceuticals)				
Section cross-reference(s): 17, 62				
REFERENCE COUNT: 2		THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT		

L172 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:220677 CAPLUS
 DOCUMENT NUMBER: 139:52191
 TITLE: Biogenina-based dietary additives. Stimulation of hair shaft growth
 AUTHOR(S): **Rinaldi, Fabio; Sorbellini, Elisabetta; Bezzola, Paola; Marchioretto, Danila Ingrid**

CORPORATE SOURCE: Unita Operativa di Dermatologia, Policlinico
Multimedica, Milan, Italy

SOURCE: Cosmetic Technology (Milano, Italy) (2002), 5(6), 9-15
CODEN: CTECFI; ISSN: 1127-6312

PUBLISHER: C.E.C. sas

DOCUMENT TYPE: Journal

LANGUAGE: Italian

AB The effects of the Bioscalin (Giuliani, Milan) dietary supplement on hair growth were studied in 60 humans (18-60 yr old, both genders) with hair loss (defluvium telogenicum) lasting at least 3 mo. Bioscalin contains methionine, vitamins C, E, B6, folate, biotin, Ca pantothenate, Zn, Cu, grape polyphenols, and spermidine (Biogenina - as spermidine-based product). The subjects took the pure spermidine supplement, Bioscalin, or placebo daily for 2 mo and the hair effects were evaluated 1 mo after the end of treatments. The dermatol. examination included hair microscopy, trichogram, pull test, and wash test. The spermidine supplement Biogenin and especially the combined Bioscalin supplement had some pos. clin. effects on hair growth compared to placebo. No adverse effects were noted.

CC 18-3 (Animal Nutrition)
Section cross-reference(s): 62

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L172 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:513311 CAPLUS

DOCUMENT NUMBER: 133:125297

TITLE: Compositions containing Bacillus coagulans and lysine suitable as food integrator and for the treatment of intestinal disorders and alterations of the bacterial flora, and the culture method

INVENTOR(S): Bondi, Moreno; Frigerio, Giuliano; Gatti, Valter; Marchioretto, Danila Ingrid; Messi, Paola

PATENT ASSIGNEE(S): Giuliani S.p.A., Italy

SOURCE: Eur. Pat. Appl., 13 pp.
CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1022023	A1	20000726	EP 1999-204611	19991230
EP 1022023	B1	20051026		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
IT 1306201	B1	20010530	IT 1999-MI50	19990114
US 6368580	B1	20020409	US 2000-477062	20000103
JP 2000210077	A2	20000802	JP 2000-4678	20000113
JP 3520012	B2	20040419		

PRIORITY APPLN. INFO.: IT 1999-MI50 A 19990114

AB The subject of the present invention is a composition suitable as food integrator and for the treatment of intestinal disorders and alterations of the bacterial flora, characterized in that it contains as active principle a combination of Bacillus coagulans and lysine. According to a preferred embodiment of the invention, the composition is made by first subjecting the Bacillus coagulans to a culture in the presence of lysine in the germinative phase, and then bringing it back to the state of spore. A further subject of the present invention is a method for the growth and

development of cultures of *Bacillus coagulans* in the presence of lysine, as well as the use of these bacterial cultures thus produced and developed in the preparation of compns. suitable both as food integrators and as pharmaceutical compns. A sustained-release gelatin capsule containing *Bacillus coagulans* 100 (10-10000 + 105 cfu), L-lysine hydrochloride 0.25-250, magnesium stearate 4.4, colloidal silica 0.8, dextrose ≤ 440, and hard gelatin capsule 97 mg was prepared

IC ICM A61K031-195

ICS C12N001-00; C12N003-00; A61P001-00

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 18

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L172 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:701876 CAPLUS

TITLE: Fluorescence lifetime imaging: an application to the detection of skin tumors

AUTHOR(S): Cubeddu, Rinaldo; Pifferi, A.; Taroni, P.; Torricelli, A.; Valentini, G.; **Rinaldi, F.; Sorbellini, E.**

CORPORATE SOURCE: Dipartimento di fisica, INFN Politecnico di Milano, C.E.Q.S.E-C.N.R., Milan, 20133, Italy

SOURCE: IEEE Journal of Selected Topics in Quantum Electronics (1999), 5(4), 923-929

CODEN: IJSQEN; ISSN: 1077-260X

PUBLISHER: Institute of Electrical and Electronics Engineers

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A portable system based on fluorescence lifetime imaging has been developed and tested for the detection of skin tumors in humans. The Heme precursor δ -aminolevulinic acid, which promotes the preferential accumulation of the endogenous Protoporphyrin IX (PpIX) in proliferative tissues, is used as an exogenous marker to target the tumor. δ -aminolevulinic acid is topically administered to the patient 1 h before the measurement. Then, using a gated intensified camera, two or more images of the sample are acquired after different delays with respect to the excitation pulses. The images are processed in real time in order to calculate the spatial map of the fluorescence decay time of the sample. The localization of the tumor is based on the longer decay time detected in neoplastic tissues as a result of the stronger emission of PpIX, which has a long decay time, and the reduction in the short living natural tissue fluorescence.

REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L172 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:483206 CAPLUS

DOCUMENT NUMBER: 132:69051

TITLE: Plant formulation for treating hair loss

AUTHOR(S): Cristoni, Aldo; Guglielmini, Giancarlo; Seghizzi, Roberto; Taverna, Barbara; **Sorbellini, Elisabetta; Rinaldi, Fabio**

CORPORATE SOURCE: Indena S.p.A., Milan, Italy

SOURCE: Cosmetic News (1999), 22(125), 140-144

CODEN: COSNDG; ISSN: 1125-6222

PUBLISHER: SEPEM s.r.l.

DOCUMENT TYPE: Journal

LANGUAGE: Italian

AB A lotion for the treatment of hair loss was prepared which contained 3

plant-derived components: esculoside 1%, ximeninic acid 0.5%, lauric acid 0.2%. Subjects with androgenic alopecia applied the lotion or placebo to the scalp for 90 days. At the end of the treatment, subjects using the lotion showed significant variations in trichogram and phototrichogram findings. In the placebo group, no significant variations were observed. After treatment discontinuation for 30 days, at which time the pos. effects of the initial treatment were still partially apparent, the subjects resumed treatment for an addnl. 45 days. The results of the 2nd treatment confirmed the previous effects. These findings support the efficacy of this lotion for the control of hair loss.

CC 62-3 (Essential Oils and Cosmetics)

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L172 ANSWER 8 OF 9 MEDLINE on STN DUPLICATE 1
ACCESSION NUMBER: 94296080 MEDLINE
DOCUMENT NUMBER: PubMed ID: 8024274
TITLE: Personality disorders and psychopathologic symptoms in patients with androgenetic alopecia.
COMMENT: Comment in: Arch Dermatol. 1994 Jul;130(7):907-8. PubMed ID: 8024278
AUTHOR: Maffei C; Fossati A; Rinaldi F; Riva E
CORPORATE SOURCE: Department of Neuropsychic Sciences, Scientific Institute San Raffaele, Milan, Italy.
SOURCE: Archives of dermatology, (1994 Jul) 130 (7) 868-72. Journal code: 0372433. ISSN: 0003-987X.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 199408
ENTRY DATE: Entered STN: 19940815
Last Updated on STN: 19970203
Entered Medline: 19940802

ABSTRACT:

BACKGROUND AND DESIGN: The few articles published on the interactions between psychological factors and alopecia seem to yield contrasting results. To assess the relationships between alopecia, gender, Diagnostic Statistical Manual of Mental Disorders, Revised Third Edition personality disorders, and psychopathologic symptoms reactive to alopecia, we administered the Personality Disorders Questionnaire-Revised and the Symptoms Checklist-90 to a randomly selected sample of 116 outpatients with androgenetic alopecia. RESULTS: The prevalence of personality disorders in subjects with androgenetic alopecia proved to be significantly higher than the prevalence of such diagnoses in the general population. Women did not show a higher prevalence of personality disorders or more psychopathologic symptoms than men. The factor analysis demonstrated the existence of three personality profiles (F1, F2, and F3) significantly and specifically associated with the subject's gender and with the psychopathologic reactive symptoms, measured using the Symptoms Checklist-90. CONCLUSIONS: The most important factor in developing a psychopathologic reaction to alopecia seems to be the presence of a Diagnostic Statistical Manual of Mental Disorders, Revised Third Edition personality disorder and not the subject's gender.

CONTROLLED TERM: Check Tags: Comparative Study; Female; Male
Adolescent
Adult
*Alopecia: CO, complications

***Alopecia: PX, psychology**
Humans
Middle Aged
***Personality Disorders: ET, etiology**
Regression Analysis
Sex Factors

L172 ANSWER 9 OF 9 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 2002:282711 BIOSIS
DOCUMENT NUMBER: PREV200200282711
TITLE: Composition suitable as food integrator and for the

treatment of intestinal disorders and alterations of the
bacterial flora.

AUTHOR(S): Bondi, Moreno [Inventor, Reprint author]; Messi, Paola
[Inventor]; Frigerio, Giuliano [Inventor];
Marchioretto, Danila Ingrid [Inventor]; **Gatti,**
Valter [Inventor]

CORPORATE SOURCE: Modena, Italy
ASSIGNEE: Giuliani S.p.A, Milan, Italy

PATENT INFORMATION: US 6368580 20020409
SOURCE: Official Gazette of the United States Patent and Trademark
Office Patents, (Apr. 9, 2002) Vol. 1257, No. 2.
<http://www.uspto.gov/web/menu/patdata.html>. e-file.
CODEN: OGUPE7. ISSN: 0098-1133.

DOCUMENT TYPE: Patent
LANGUAGE: English
ENTRY DATE: Entered STN: 8 May 2002
Last Updated on STN: 8 May 2002

ABSTRACT: The subject of the present invention is a composition suitable as food
integrator and for the treatment of intestinal disorders and alterations of the
bacterial flora, characterized in that it contains as active principle a
combination of *Bacillus coagulans* and lysine. A further subject of the present
invention is a method for the growth and development of cultures of *Bacillus*
coagulans in the presence of lysine, as well as the use of these bacterial
cultures thus produced and developed in the preparation of compositions
suitable both as food integrators and as pharmaceutical compositions.

NAT. PATENT. CLASSIF.: 424061000

CONCEPT CODE: Digestive system - Pathology 14006
Pathology - Therapy 12512
Pharmacology - General 22002
Pharmacology - Digestive system 22014

INDEX TERMS: Major Concepts
Pharmacology

INDEX TERMS: Diseases
intestinal disorder: digestive system disease, drug
therapy

INDEX TERMS: Chemicals & Biochemicals
food integrator compositions: gastrointestinal-drug

INDEX TERMS: Miscellaneous Descriptors
bacterial flora

TEXT SEARCH, PART 1 of 3
(BROAD)

=> □

=> file caplus

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FILE COVERS 1907 - 11 Jan 2006 VOL 144 ISS 3

FILE LAST UPDATED: 10 Jan 2006 (20060110/ED)

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'OBI' IS DEFAULT SEARCH FIELD FOR 'CAPLUS' FILE

=> d que nos L14

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L2          STR
L3          118 SEA FILE=REGISTRY FAM FUL L2
L7          9495 SEA FILE=CAPLUS ABB=ON  PLU=ON  L3
L12         3134 SEA FILE=CAPLUS ABB=ON  PLU=ON  ALOPECIA?/OBI
L14         8 SEA FILE=CAPLUS ABB=ON  PLU=ON  L7 AND L12
```

=> d que nos L15

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L2          STR
L3          118 SEA FILE=REGISTRY FAM FUL L2
L7          9495 SEA FILE=CAPLUS ABB=ON  PLU=ON  L3
L13         4570 SEA FILE=CAPLUS ABB=ON  PLU=ON  ?ALOPECIA?/BI
L15         8 SEA FILE=CAPLUS ABB=ON  PLU=ON  L7 AND L13
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=> d que nos L17

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L2          STR
L3          118 SEA FILE=REGISTRY FAM FUL L2
L7          9495 SEA FILE=CAPLUS ABB=ON  PLU=ON  L3
L12         3134 SEA FILE=CAPLUS ABB=ON  PLU=ON  ALOPECIA?/OBI
L13         4570 SEA FILE=CAPLUS ABB=ON  PLU=ON  ?ALOPECIA?/BI
L14         8 SEA FILE=CAPLUS ABB=ON  PLU=ON  L7 AND L12
L15         8 SEA FILE=CAPLUS ABB=ON  PLU=ON  L7 AND L13
L16         927 SEA FILE=CAPLUS ABB=ON  PLU=ON  L3 (L) (THU OR PAC OR PKT OR
DMA OR BAC)/RL
L17         4 SEA FILE=CAPLUS ABB=ON  PLU=ON  (L14 OR L15) AND L16
```

=> d que nos L24

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L2          STR
L3          118 SEA FILE=REGISTRY FAM FUL L2
L6          52893 SEA FILE=CAPLUS ABB=ON PLU=ON HAIR?/OBI
L7          9495 SEA FILE=CAPLUS ABB=ON PLU=ON L3
L9          695470 SEA FILE=CAPLUS ABB=ON PLU=ON GROW?/OBI
L10         4997 SEA FILE=CAPLUS ABB=ON PLU=ON L6 AND L9
L11         20 SEA FILE=CAPLUS ABB=ON PLU=ON L10 AND L7
L20         1292 SEA FILE=CAPLUS ABB=ON PLU=ON HAIRY ROOT?/OBI
L21         9 SEA FILE=CAPLUS ABB=ON PLU=ON L11 NOT L20
L23         686 SEA FILE=CAPLUS ABB=ON PLU=ON HAIRY-CELL/OBI
L24         8 SEA FILE=CAPLUS ABB=ON PLU=ON L21 NOT L23
```

=> d que nos L31

```
L2          STR
L3          118 SEA FILE=REGISTRY FAM FUL L2
L6          52893 SEA FILE=CAPLUS ABB=ON PLU=ON HAIR?/OBI
L16         927 SEA FILE=CAPLUS ABB=ON PLU=ON L3 (L) (THU OR PAC OR PKT OR
DMA OR BAC)/RL
L20         1292 SEA FILE=CAPLUS ABB=ON PLU=ON HAIRY ROOT?/OBI
L27         18 SEA FILE=CAPLUS ABB=ON PLU=ON L6 AND L16
L30         5129 SEA FILE=CAPLUS ABB=ON PLU=ON HAIRPIN?/OBI
L31         12 SEA FILE=CAPLUS ABB=ON PLU=ON L27 NOT (L30 OR L20)
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=> d que nos L35

```
L2          STR
L3          118 SEA FILE=REGISTRY FAM FUL L2
L6          52893 SEA FILE=CAPLUS ABB=ON PLU=ON HAIR?/OBI
L7          9495 SEA FILE=CAPLUS ABB=ON PLU=ON L3
L33         133507 SEA FILE=CAPLUS ABB=ON PLU=ON LOSS?/OBI
L35         5 SEA FILE=CAPLUS ABB=ON PLU=ON L6 AND L33 AND L7
```

=> s (L14-L15 or L17 or L24 or L31 or L35) not L168

L173 18 ((L14 OR L15) OR L17 OR L24 OR L31 OR L35) NOT (L168)

=> file medline

FILE 'MEDLINE' ENTERED AT 15:55:32 ON 11 JAN 2006

FILE LAST UPDATED: 10 JAN 2006 (20060110/UP). FILE COVERS 1950 TO DATE.

On December 11, 2005, the 2006 MeSH terms were loaded.

The MEDLINE reload for 2006 will soon be available. For details on the 2005 reload, enter HELP RLOAD at an arrow prompt (=>). See also:

<http://www.nlm.nih.gov/mesh/>
http://www.nlm.nih.gov/pubs/techbull/nd04/nd04_mesh.html
http://www.nlm.nih.gov/pubs/techbull/nd05/nd05_med_data_changes.html
http://www.nlm.nih.gov/pubs/techbull/nd05/nd05_2006_MeSH.html

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OLDMEDLINE is covered back to 1950.

MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the MeSH 2006 vocabulary.

This file contains CAS Registry Numbers for easy and accurate

=> d que nos L67

```
L2          STR
L3          118 SEA FILE=REGISTRY FAM FUL L2
L62         7091 SEA FILE=MEDLINE ABB=ON  PLU=ON  ALOPECIA+NT/CT
L66         3863 SEA FILE=MEDLINE ABB=ON  PLU=ON  L3
L67         1 SEA FILE=MEDLINE ABB=ON  PLU=ON  L62 AND L66
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=> d que nos L74

```
L70         3863 SEA FILE=MEDLINE ABB=ON  PLU=ON  SPERMIDINE/CT
L71         1483 SEA FILE=MEDLINE ABB=ON  PLU=ON  L70 (L) (TU OR PD OR PK OR
AD)/CT
L73         18182 SEA FILE=MEDLINE ABB=ON  PLU=ON  HAIR+NT/CT
L74         1 SEA FILE=MEDLINE ABB=ON  PLU=ON  L71 AND L73
```

=> d que nos L75

```
L70         3863 SEA FILE=MEDLINE ABB=ON  PLU=ON  SPERMIDINE/CT
L73         18182 SEA FILE=MEDLINE ABB=ON  PLU=ON  HAIR+NT/CT
L75         3 SEA FILE=MEDLINE ABB=ON  PLU=ON  L73 AND L70
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=> d que nos L78

```
L70         3863 SEA FILE=MEDLINE ABB=ON  PLU=ON  SPERMIDINE/CT
L77         7091 SEA FILE=MEDLINE ABB=ON  PLU=ON  ALOPECIA+NT/CT
L78         1 SEA FILE=MEDLINE ABB=ON  PLU=ON  L77 AND L70
```

=> d que nos L79

```
L70         3863 SEA FILE=MEDLINE ABB=ON  PLU=ON  SPERMIDINE/CT
L76         3425 SEA FILE=MEDLINE ABB=ON  PLU=ON  ?BALD?
L79         1 SEA FILE=MEDLINE ABB=ON  PLU=ON  L76 AND L70
```

=> d que nos L87

```
L2          STR
L3          118 SEA FILE=REGISTRY FAM FUL L2
L66         3863 SEA FILE=MEDLINE ABB=ON  PLU=ON  L3
L68         71376 SEA FILE=MEDLINE ABB=ON  PLU=ON  ?HAIR?
L86         1925 SEA FILE=MEDLINE ABB=ON  PLU=ON  L68 (L) GD/CT
L87         2 SEA FILE=MEDLINE ABB=ON  PLU=ON  L66 AND L86
```

=> s (L67 or L74 or L75 or L78 or L79 or L87) not L169

(L174 5 (L67 OR L74 OR L75 OR L78 OR L79 OR L87) NOT L169)

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=> file embase

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FILE COVERS 1974 TO 6 Jan 2006 (20060106/ED)

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This file contains CAS Registry Numbers for easy and accurate
substance identification.

=> d que nos L123

```
L2          STR
L3          118 SEA FILE=REGISTRY FAM FUL L2
L108        59675 SEA FILE=EMBASE ABB=ON  PLU=ON  ?HAIR?
L111        4309 SEA FILE=EMBASE ABB=ON  PLU=ON  L3
L112        4310 SEA FILE=EMBASE ABB=ON  PLU=ON  SPERMIDINE/CT
L113        4310 SEA FILE=EMBASE ABB=ON  PLU=ON  L112 OR L111
L115        30 SEA FILE=EMBASE ABB=ON  PLU=ON  L108 AND L113
L116        5587 SEA FILE=EMBASE ABB=ON  PLU=ON  HAIRPIN?
L117        10 SEA FILE=EMBASE ABB=ON  PLU=ON  L116 AND L113
L118        20 SEA FILE=EMBASE ABB=ON  PLU=ON  L115 NOT L117
L119        2363 SEA FILE=EMBASE ABB=ON  PLU=ON  L112/MAJ
L120        11 SEA FILE=EMBASE ABB=ON  PLU=ON  L119 AND L118
L121        860 SEA FILE=EMBASE ABB=ON  PLU=ON  L112 (L) EC/CT
L122        4 SEA FILE=EMBASE ABB=ON  PLU=ON  L120 AND L121
L123        7 SEA FILE=EMBASE ABB=ON  PLU=ON  L120 NOT L122
```

=> d que nos L125

```
L2          STR
L3          118 SEA FILE=REGISTRY FAM FUL L2
L108        59675 SEA FILE=EMBASE ABB=ON  PLU=ON  ?HAIR?
L111        4309 SEA FILE=EMBASE ABB=ON  PLU=ON  L3
L112        4310 SEA FILE=EMBASE ABB=ON  PLU=ON  SPERMIDINE/CT
L113        4310 SEA FILE=EMBASE ABB=ON  PLU=ON  L112 OR L111
L115        30 SEA FILE=EMBASE ABB=ON  PLU=ON  L108 AND L113
L116        5587 SEA FILE=EMBASE ABB=ON  PLU=ON  HAIRPIN?
L117        10 SEA FILE=EMBASE ABB=ON  PLU=ON  L116 AND L113
L118        20 SEA FILE=EMBASE ABB=ON  PLU=ON  L115 NOT L117
L119        2363 SEA FILE=EMBASE ABB=ON  PLU=ON  L112/MAJ
L121        860 SEA FILE=EMBASE ABB=ON  PLU=ON  L112 (L) EC/CT
L124        9 SEA FILE=EMBASE ABB=ON  PLU=ON  L118 NOT L119
L125        4 SEA FILE=EMBASE ABB=ON  PLU=ON  L124 NOT L121
```

=> s (L123 or L125) not L170

L175 11 (L123 OR L125) NOT L170

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=> file biosis

FILE 'BIOSIS' ENTERED AT 15:55:41 ON 11 JAN 2006
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FILE COVERS 1969 TO DATE.
CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT

FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 4 January 2006 (20060104/ED)

=> ~~d que nos L162~~

L2 STR
L3 118 SEA FILE=REGISTRY FAM FUL L2
L5 10 SEA FILE=REGISTRY ABB=ON PLU=ON (124-20-9/BI OR 137-08-6/BI
OR 1406-18-4/BI OR 50-81-7/BI OR 58-85-5/BI OR 59-30-3/BI OR
63-68-3/BI OR 7440-50-8/BI OR 7440-66-6/BI OR 8059-24-3/BI)
L56 9 SEA FILE=REGISTRY ABB=ON PLU=ON L5 NOT L3
~~L162 171224 SEA FILE=BIOSIS ABB=ON PLU=ON L56~~

=> ~~s L162 not L171~~

~~L176 171224 L162 NOT L171~~

=> => d que nos L161

L2 STR
L3 118 SEA FILE=REGISTRY FAM FUL L2
L146 6700 SEA FILE=BIOSIS ABB=ON PLU=ON L3
L147 SEL PLU=ON L3 1- CHEM : 153 TERMS
L148 9531 SEA FILE=BIOSIS ABB=ON PLU=ON L147
L149 70712 SEA FILE=BIOSIS ABB=ON PLU=ON ?HAIR?
L150 6751 SEA FILE=BIOSIS ABB=ON PLU=ON ?ALOPECIA?
L151 5417 SEA FILE=BIOSIS ABB=ON PLU=ON ?BALD?
L152 9531 SEA FILE=BIOSIS ABB=ON PLU=ON L146 OR L148
L153 58 SEA FILE=BIOSIS ABB=ON PLU=ON L152 AND (L149 OR L150 OR
L151)
L155 1415 SEA FILE=BIOSIS ABB=ON PLU=ON HAIRY ROOT?
L157 6738 SEA FILE=BIOSIS ABB=ON PLU=ON HAIRPIN?
L158 32 SEA FILE=BIOSIS ABB=ON PLU=ON L153 NOT (L155 OR L157)
L159 1203576 SEA FILE=BIOSIS ABB=ON PLU=ON GROW?
L160 372274 SEA FILE=BIOSIS ABB=ON PLU=ON LOSS?
L161 9 SEA FILE=BIOSIS ABB=ON PLU=ON L158 AND (L159 OR L160)

=> s L161 not L171

L177 9 L161 NOT L171

→ probed with another search

=> => dup rem L173 L174 L175 L177

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PROCESSING COMPLETED FOR L173

PROCESSING COMPLETED FOR L174

PROCESSING COMPLETED FOR L175

PROCESSING COMPLETED FOR L177

L178 33 DUP REM L173 L174 L175 L177 (10 DUPLICATES REMOVED)
 ANSWERS '1-18' FROM FILE CAPLUS
 ANSWERS '19-20' FROM FILE MEDLINE
 ANSWERS '21-29' FROM FILE EMBASE
 ANSWERS '30-33' FROM FILE BIOSIS

=> d ibib abs hitind hitstr L178 1-18; d iall L178 19-33

L178 ANSWER 1 OF 33 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 2
ACCESSION NUMBER: 2001:402498 CAPLUS
DOCUMENT NUMBER: 135:135756
TITLE: Relation of skin polyamines to the **hairless**
 phenotype in transgenic mice overexpressing
 spermidine/spermine N1-acetyltransferase
AUTHOR(S) : Pietila, Marko; Parkkinen, Jyrki J.; Alhonen, Leena;
 Janne, Juhani
CORPORATE SOURCE: A.I. Virtanen Institute for Molecular Sciences,
 University of Kuopio, Kuopio, FIN-70211, Finland
SOURCE: Journal of Investigative Dermatology (2001), 116(5),
 801-805
 CODEN: JIDEAE; ISSN: 0022-202X
PUBLISHER: Blackwell Science, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB We recently generated a transgenic mouse line with activated polyamine catabolism due to overexpression of spermidine/spermine N1-acetyltransferase. Phenotypic changes in these animals included permanent loss of hair at the age of 3 wk. We have now further explored development of hair loss during early postnatal life. The first hair cycle appeared to be completed normally in the transgenic animals. At postnatal day 15, although macroscopically indistinguishable from their syngenic littermates, the transgenic animals already showed microscopically signs of hair follicle degeneration. Wild-type mice started their second anagen phase at day 27, whereas the transgenic animals did not display functional hair follicles at that time. Hair follicles were replaced by dermal cysts and epidermal utriculi. Anal. of skin polyamines revealed that the transgenic animals continuously overaccumulated putrescine. The view that an overaccumulation of putrescine was related to the disturbed hair follicle development was strengthened by the finding that doubly transgenic mice overexpressing, both spermidine/spermine N1-acetyl-transferase and ornithine decarboxylase and with extremely high levels of putrescine in the skin, showed distinctly more severe skin changes compared with the singly transgenic animals. Interestingly, in spite of their hairless phenotype, the spermidine/spermine N1-acetyltransferase transgenic mice, were significantly more resistant to the development of papillomas in response to the two-stage skin carcinogenesis. Anal. of skin polyamines indicated that the syngenic mice tripled their spermidine content when exposed to promotion, whereas the transgenic animals showed only modest changes. These results suggest that putrescine plays a pivotal part in normal hair follicle development.

CC 14-9 (Mammalian Pathological Biochemistry)

Section cross-reference(s): 13

ST spermidine spermine acetyltransferase putrescine **hair**
 loss transgenic mouse

IT Gene, animal

RL: BOC (Biological occurrence); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence); PROC (Process)

(SSAT; skin polyamines in relation to **hairless** phenotype in

transgenic mice overexpressing spermidine/spermine N1-acetyltransferase)

- IT **Hair**
(cycle; skin polyamines in relation to **hairless** phenotype in transgenic mice overexpressing spermidine/spermine N1-acetyltransferase)
- IT Skin, disease
(dermal cyst; skin polyamines in relation to **hairless** phenotype in transgenic mice overexpressing spermidine/spermine N1-acetyltransferase)
- IT **Hair**
(follicle; skin polyamines in relation to **hairless** phenotype in transgenic mice overexpressing spermidine/spermine N1-acetyltransferase)
- IT **Alopecia**
Development, mammalian postnatal
Mouse
Newborn
Transformation, genetic
Transformation, neoplastic
(skin polyamines in relation to **hairless** phenotype in transgenic mice overexpressing spermidine/spermine N1-acetyltransferase)
- IT 83268-44-4
RL: ADV (Adverse effect, including toxicity); BOC (Biological occurrence); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence); PROC (Process)
(skin polyamines in relation to **hairless** phenotype in transgenic mice overexpressing spermidine/spermine N1-acetyltransferase)
- IT 110-60-1, Putrescine 124-20-9, Spermidine 9024-60-6, Ornithine decarboxylase 14278-49-0
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(skin polyamines in relation to **hairless** phenotype in transgenic mice overexpressing spermidine/spermine N1-acetyltransferase)
- IT 124-20-9, Spermidine
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(skin polyamines in relation to **hairless** phenotype in transgenic mice overexpressing spermidine/spermine N1-acetyltransferase)
- RN 124-20-9 CAPLUS
- CN 1,4-Butanediamine, N-(3-aminopropyl)- (8CI, 9CI) (CA INDEX NAME)

$\text{H}_2\text{N}-(\text{CH}_2)_4-\text{NH}-(\text{CH}_2)_3-\text{NH}_2$

REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L178 ANSWER 2 OF 33 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 3

ACCESSION NUMBER: 1999:205700 CAPLUS

DOCUMENT NUMBER: 131:56800

TITLE: Overexpression of spermidine/spermine N1-acetyltransferase under the control of mouse metallothionein I promoter in transgenic mice: evidence for a striking post-transcriptional

regulation of transgene expression by a polyamine analog

AUTHOR(S): Suppola, Suvikki; Pietila, Marko; Parkkinen, Jyrki J.; Korhonen, Veli-Pekka; Alhonen, Leena; Halmekyto, Maria; Porter, Carl W.; Janne, Juhani

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SOURCE: Biochemical Journal (1999), 338(2), 311-316
CODEN: BIJOAK; ISSN: 0264-6021

PUBLISHER: Portland Press Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The authors recently generated a transgenic mouse line overexpressing spermidine/spermine N1-acetyltransferase (SSAT) gene under its own promoter. The tissue polyamine pools of these animals were profoundly affected and the mice were hairless from early age. The authors have now generated another transgenic-mouse line over-expressing the SSAT gene under the control of a heavy-metal-inducible mouse metallothionein I (MT) promoter. Even in the absence of heavy metals, changes in the tissue polyamine pools indicated that a marked activation of polyamine catabolism had occurred in the transgenic animals. As with the SSAT transgenic mice generated previously, the mice of the new line (MT-SSAT) suffered permanent hair loss, but this occurred considerably later than in the previous SSAT transgenic animals. Liver was the most affected tissue in the MT-SSAT transgenic animals, revealed by putrescine overaccumulation, significant decrease in spermidine concentration and > 90 % reduction in the spermine pool. Even though hepatic SSAT mRNA accumulated to massive levels in non-induced transgenic animals, SSAT activity was only moderately elevated. Administration of ZnSO4 further elevated the level of hepatic SSAT message and induced enzyme activity, but not more than 2- to 3-fold. Treatment of the transgenic animals with the polyamine analog NI,N''-diethylnorspermine (DENSPM) resulted in an immense induction, more than 40,000-fold, of enzyme activity in the liver of transgenic animals, and minor changes in the SSAT mRNA level. Liver spermidine and spermine pools were virtually depleted within 1-2 days in response to the treatment with the analog. The treatment also resulted in a marked mortality (up to 60%) among the transgenic animals which showed ultrastructural changes in the liver, most notably mitochondrial swelling, one of the earliest signs of cell injury. These results indicated that, even without its own promoter, SSAT is powerfully induced by the polyamine analog through a mechanism that appears to involve a direct translational and/or heterogeneous nuclear RNA processing control. It is likewise significant that overexpression of SSAT renders the animals extremely sensitive to polyamine analogs.

CC 13-2 (Mammalian Biochemistry)
Section cross-reference(s): 3, 7

IT **Alopecia**
(spermidine/spermine N1-acetyltransferase-metallothionein promoter transgene overexpression in mice causes)

IT 71-44-3, Spermine 110-60-1, 1,4-Butanedi-amine 124-20-9, Spermidine 14278-49-0
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(spermidine/spermine N1-acetyltransferase-metallothionein promoter transgene overexpression in mice effect on SSAT enzyme activity and polyamine levels and post-transcriptional regulation of SSAT transgene expression by a polyamine analog)

IT 124-20-9, Spermidine
RL: BOC (Biological occurrence); BSU (Biological study, unclassified);

BIOL (Biological study); OCCU (Occurrence)
 (spermidine/spermine N1-acetyltransferase-metallothionein promoter
 transgene overexpression in mice effect on SSAT enzyme activity and
 polyamine levels and post-transcriptional regulation of SSAT transgene
 expression by a polyamine analog)

RN 124-20-9 CAPLUS

CN 1,4-Butanediamine, N-(3-aminopropyl)- (8CI, 9CI) (CA INDEX NAME)

H₂N-(CH₂)₄-NH-(CH₂)₃-NH₂

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L178 ANSWER 3 OF 33 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 4

ACCESSION NUMBER: 1997:500349 CAPLUS

DOCUMENT NUMBER: 127:218224

TITLE: Activation of polyamine catabolism profoundly alters
 tissue polyamine pools and affects **hair**
growth and female fertility in transgenic mice
 overexpressing spermidine/spermine
 N1-acetyltransferase

AUTHOR(S): Pietila, Marko; Alhonen, Leena; Halmekyto, Maria;
 Kanter, Peter; Janne, Juhani; Porter, Carl W.

CORPORATE SOURCE: A. I. Virtanen Inst., Univ. Kuopio, Kuopio, FIN-70211,
 Finland

SOURCE: Journal of Biological Chemistry (1997), 272(30),
 18746-18751

CODEN: JBCHA3; ISSN: 0021-9258

PUBLISHER: American Society for Biochemistry and Molecular
 Biology

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A transgenic mouse line that overexpresses the rate-controlling enzyme of
 polyamine catabolism, spermidine/spermine N1-acetyltransferase, was
 generated. Tissues of these mice showed markedly distorted polyamine
 pools, which in most cases were characterized by the appearance of
 N1-acetylspermidine, not normally found in mouse tissues, a massive
 accumulation of putrescine, and decreases in spermadine and/or spermine
 pool. The most striking phenotypic change was permanent hair loss at the
 age of 3 to 4 wk which was typified histol. by the appearance of extensive
 follicular cysts in the dermis. The effect seemed attributable to
 putrescine interference /proliferation of epidermal cells located in hair
 follicles. Female members of the transgenic line were found to be
 infertile apparently due to ovarian hypofunction and hypoplastic uteri.
 The findings demonstrate the utility of spermidine/spermine
 N1-acetyltransferase overexpression as an effective means for genetically
 modulating total tissue polyamine pools in transgenic animals and examining
 the development and oncogenic consequences.

CC 13-2 (Mammalian Biochemistry)

ST polyamine catabolism **hair growth** fertility; spermidine
 spermine acetyltransferase polyamine catabolism

IT Brain
 Fertility
 Heart
 Kidney
 Liver
 Organ, animal
 Skin

Spleen
Testis
Thymus gland
Uterus

(activation of polyamine catabolism profoundly alters tissue polyamine pools and affects **hair growth** and female fertility in transgenic mice overexpressing spermidine/spermine N1-acetyltransferase)

IT **Hair**

(follicle; activation of polyamine catabolism profoundly alters tissue polyamine pools and affects **hair growth** and female fertility in transgenic mice overexpressing spermidine/spermine N1-acetyltransferase)

IT **Ovary**

(hypofunction; activation of polyamine catabolism profoundly alters tissue polyamine pools and affects **hair growth** and female fertility in transgenic mice overexpressing spermidine/spermine N1-acetyltransferase)

IT **Amines, biological studies**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(polyamines, nonpolymeric; activation of polyamine catabolism profoundly alters tissue polyamine pools and affects **hair growth** and female fertility in transgenic mice overexpressing spermidine/spermine N1-acetyltransferase)

IT 71-44-3, Spermine 110-60-1, Putrescine 124-20-9, Spermidine 9024-60-6, Ornithine decarboxylase 9036-20-8, Adenosylmethionine decarboxylase 14278-49-0 83268-44-4

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(activation of polyamine catabolism profoundly alters tissue polyamine pools and affects **hair growth** and female fertility in transgenic mice overexpressing spermidine/spermine N1-acetyltransferase)

IT 124-20-9, Spermidine

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(activation of polyamine catabolism profoundly alters tissue polyamine pools and affects **hair growth** and female fertility in transgenic mice overexpressing spermidine/spermine N1-acetyltransferase)

RN 124-20-9 CAPLUS

CN 1,4-Butanediamine, N-(3-aminopropyl)- (8CI, 9CI) (CA INDEX NAME)

$\text{H}_2\text{N}^-(\text{CH}_2)_4-\text{NH}^-(\text{CH}_2)_3-\text{NH}_2$

REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L178 ANSWER 4 OF 33 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 5

ACCESSION NUMBER: 1996:239289 CAPLUS

DOCUMENT NUMBER: 124:339125

TITLE: Inhibition of polyamine synthesis alters **hair** follicle function and fiber composition

AUTHOR(S): Hynd, Philip I.; Nancarrow, Michelle J.

CORPORATE SOURCE: Department Animal Science, University Adelaide, Glen Osmond, 5064, Australia

SOURCE: Journal of Investigative Dermatology (1996), 106(2),

249-53

CODEN: JIDEAE; ISSN: 0022-202X

PUBLISHER: Elsevier

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The activities of ornithine decarboxylase and S-adenosylmethionine decarboxylase, two of the enzymes involved in the synthesis of the polyamines, were found to be high in follicle-rich homogenates of sheep skin, and to be responsive to the nutrition of the animal. Systemic provision of the inhibitor of ornithine decarboxylase, α -difluoromethylornithine, markedly altered the length, diameter, and composition of the fiber, the last being accompanied by an increase in the proportion of the fiber occupied by paracortical cells and an increase in the level of mRNA encoding a cysteine-rich family of keratin proteins. The growth of wool follicles cultured in media containing α -difluoromethylornithine was not inhibited, even at high concns. In contrast, low concns. of methylglyoxal (bis)guanyldrazone, the inhibitor of S-adenosylmethionine decarboxylase, completely inhibited fiber growth in cultured follicles. Addition of spermidine to the media overcame this inhibition but spermine had no effect. Further evidence that spermine is not required for normal follicle function was provided by incubating follicles with the specific inhibitor of spermine synthase, n-butyl-1,3-diaminopropane. This inhibitor, even at high concns., had no effect on fiber growth in vitro. Spermidine partially overcame the growth depression that occurred in follicles cultured in methionine-deficient media, suggesting that part of the requirement for methionine is for spermidine synthesis in the follicle. These investigations provide strong evidence that the polyamines in general, and spermidine in particular, play a major role in hair growth.

CC 13-6 (Mammalian Biochemistry)

ST polyamine **hair** follicle function fiber compn; spermidine **hair** follicle function fiber compn; enzyme polyamine formation **hair** follicle

IT **Hair**

(follicle, inhibition of polyamine synthesis alters **hair** follicle function and fiber composition)

IT Amines, biological studies

RL: BPR (Biological process); BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); PROC (Process)

(poly-, inhibition of polyamine synthesis alters **hair** follicle function and fiber composition)

IT 124-20-9, Spermidine

RL: **BAC (Biological activity or effector, except adverse)**; BSU (Biological study, unclassified); BIOL (Biological study) (inhibition of polyamine synthesis alters **hair** follicle function and fiber composition)

IT 9024-60-6, Ornithine decarboxylase 9036-20-8, S-Adenosylmethionine decarboxylase

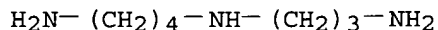
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process) (inhibition of polyamine synthesis alters **hair** follicle function and fiber composition)

IT 124-20-9, Spermidine

RL: **BAC (Biological activity or effector, except adverse)**; BSU (Biological study, unclassified); BIOL (Biological study) (inhibition of polyamine synthesis alters **hair** follicle function and fiber composition)

RN 124-20-9 CAPLUS

CN 1,4-Butanediamine, N-(3-aminopropyl)- (8CI, 9CI) (CA INDEX NAME)



L178 ANSWER 5 OF 33 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:1103623 CAPLUS

DOCUMENT NUMBER: 143:373378

TITLE: Preparation for transferring nucleic acid into cell containing polysaccharides

INVENTOR(S): Tabata, Yasuhiko

PATENT ASSIGNEE(S): Medgel Corporation, Japan

SOURCE: PCT Int. Appl., 48 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005094894	A1	20051013	WO 2005-JP6370	20050331
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

PRIORITY APPLN. INFO.: JP 2004-103568 A 20040331

AB It is intended to provide a composition for promoting the transfer of a nucleic acid into a cell which comprises a polysaccharide; and a method of transferring a nucleic acid into a cell which comprises forming a polyion complexes of the nucleic acid with a polysaccharide and making the cell to incorporate the polyion complexes therein. It is preferable that the cell is one selected from among bone marrow mesenchymal stem cells, neural cell strains, adipose tissue-origin stem cells, immunocytes, neurocytes and chondrocytes. It is preferable that the polysaccharide is a cationized pullulan derivative, a cationized dextran derivative or a cationized mannan derivative

IC ICM A61K047-36

ICS C08B037-00; C08B037-02; C12N015-09

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 3

IT **Hair**

(follicle, cells; composition for transferring nucleic acid into cell containing polysaccharides)

IT **Ear**

(**hairy** cell; composition for transferring nucleic acid into cell containing polysaccharides)

IT **Hair**

(papilla, cells; composition for transferring nucleic acid into cell containing polysaccharides)

IT 71-44-3DP, Spermine, reaction products with polysaccharides, polyion complexes with plasmid DNA 107-15-3DP, Ethylenediamine, reaction products with polysaccharides, polyion complexes with plasmid DNA 124-20-9DP, Spermidine, reaction products with polysaccharides, polyion complexes with plasmid DNA 9004-54-0DP, Dextran, cationized, polyion complexes with plasmid DNA 9036-88-8DP, Mannan, cationized, polyion complexes with plasmid DNA 9057-02-7DP, Pullulan, cationized, polyion complexes with plasmid DNA
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(composition for transferring nucleic acid into cell containing polysaccharides)

IT 124-20-9DP, Spermidine, reaction products with polysaccharides, polyion complexes with plasmid DNA
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(composition for transferring nucleic acid into cell containing polysaccharides)

RN 124-20-9 CAPLUS

CN 1,4-Butanediamine, N-(3-aminopropyl)- (8CI, 9CI) (CA INDEX NAME)

H₂N⁺ (CH₂)₄ - NH⁺ (CH₂)₃ - NH₂

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L178 ANSWER 6 OF 33 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:1001904 CAPLUS

DOCUMENT NUMBER: 143:292553

TITLE: Composition for regulating the trophism of hair follicles and the cutaneous production of sebum and use thereof in androgenetic alopecia
 INVENTOR(S): Giuliani, Giammaria; Benedusi, Anna; Bellinvia, Salvatore; Rinaldi, Fabio

PATENT ASSIGNEE(S): Giuliani S.P.A., Italy

SOURCE: PCT Int. Appl., 49 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005084621	A1	20050915	WO 2005-IB544	20050301
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

PRIORITY APPLN. INFO.:

IT 2004-MI386

A 20040302

IT 2004-MI388

A 20040302

- AB The present invention relates to a composition for regulating the trophism of hair follicles and the cutaneous production of sebum and its use in androgenetic **alopecia**, comprising the synergic association of an extract from *Boehmeria nipoonivea* which inhibits the 5 α -reductase with a compound active at the keratin epithelial structure level, selected from specific sulfur-donor compds. and antioxidants. The composition of the invention is suitable for topical and/or oral administration. For example, *Boehmeria* extract showed an inhibiting capacity of 5 α -reductase quant. comparable to that of finasteride, but lasting longer. Dietary supplement in tablet form suitable for the prevention of androgenetic **alopecia** in males and females contained spermidine trihydrochloride 0.50 mg, calcium pantothenate 9 mg, d-biotin 0.150 mg, *B. nipoonivea* extract 150 mg, quercetin 0.90 mg, taurine 100 mg, zinc amino acid chelate 7.5 mg, copper amino acid chelate 1.20 mg, folic acid 0.30 mg, microcryst. cellulose 90.0 mg, calcium phosphate dibasic dihydrate 80.0 mg, hydroxypropyl Me cellulose 52.5 mg, magnesium stearate 7.90 mg, and silicon dioxide 1.70 mg.
- IC ICM A61K007-06
ICS A23L001-30; A61K031-00
- CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1, 62
- ST *Boehmeria* ext antioxidant sulfur donor oral topical androgenetic **alopecia**; reductase inhibitor *Boehmeria* ext **hair growth** stimulant
- IT Epithelium
(cutaneous; oral and topical compns. comprising *Boehmeria nipoonivea* extract and sulfur donor compound for treatment of androgenetic **alopecia** by regulating trophism of **hair** follicles and cutaneous production of sebum)
- IT Skin
(epithelium; oral and topical compns. comprising *Boehmeria nipoonivea* extract and sulfur donor compound for treatment of androgenetic **alopecia** by regulating trophism of **hair** follicles and cutaneous production of sebum)
- IT *Boehmeria nipoonivea*
(extract; oral and topical compns. comprising *Boehmeria nipoonivea* extract and sulfur donor compound for treatment of androgenetic **alopecia** by regulating trophism of **hair** follicles and cutaneous production of sebum)
- IT **Hair**
(follicle, trophism; oral and topical compns. comprising *Boehmeria nipoonivea* extract and sulfur donor compound for treatment of androgenetic **alopecia** by regulating trophism of **hair** follicles and cutaneous production of sebum)
- IT **Hair** preparations
(**growth** stimulants; oral and topical compns. comprising *Boehmeria nipoonivea* extract and sulfur donor compound for treatment of androgenetic **alopecia** by regulating trophism of **hair** follicles and cutaneous production of sebum)
- IT Flavones
RL: NPO (Natural product occurrence); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(hydroxy; oral and topical compns. comprising *Boehmeria nipoonivea* extract and sulfur donor compound for treatment of androgenetic **alopecia** by regulating trophism of **hair** follicles and cutaneous production of sebum)
- IT Flavones
RL: NPO (Natural product occurrence); THU (Therapeutic use); BIOL

- (Biological study); OCCU (Occurrence); USES (Uses)
 (isoflavones; oral and topical compns. comprising Boehmeria nipononivea extract and sulfur donor compound for treatment of androgenetic alopecia by regulating trophism of hair follicles and cutaneous production of sebum)
- IT Oxidative stress, biological
 (keratin structures damage by, reduction of; oral and topical compns. comprising Boehmeria nipononivea extract and sulfur donor compound for treatment of androgenetic alopecia by regulating trophism of hair follicles and cutaneous production of sebum)
- IT Alopecia
 (male pattern; oral and topical compns. comprising Boehmeria nipononivea extract and sulfur donor compound for treatment of androgenetic alopecia by regulating trophism of hair follicles and cutaneous production of sebum)
- IT Anti-inflammatory agents
 Antioxidants
 Combination chemotherapy
 Human
 Limnanthes alba
 Rosmarinus officinalis
 Vitellaria paradoxa
 (oral and topical compns. comprising Boehmeria nipononivea extract and sulfur donor compound for treatment of androgenetic alopecia by regulating trophism of hair follicles and cutaneous production of sebum)
- IT Androgens
 Keratins
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (oral and topical compns. comprising Boehmeria nipononivea extract and sulfur donor compound for treatment of androgenetic alopecia by regulating trophism of hair follicles and cutaneous production of sebum)
- IT Carotenes, biological studies
 Flavanols
 Flavonoids
 Isoprenoids
 Saponins
 Tocopherols
 RL: NPO (Natural product occurrence); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
 (oral and topical compns. comprising Boehmeria nipononivea extract and sulfur donor compound for treatment of androgenetic alopecia by regulating trophism of hair follicles and cutaneous production of sebum)
- IT Drug delivery systems
 (oral; oral and topical compns. comprising Boehmeria nipononivea extract and sulfur donor compound for treatment of androgenetic alopecia by regulating trophism of hair follicles and cutaneous production of sebum)
- IT Flavonoids
 RL: NPO (Natural product occurrence); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
 (oxo dihydro; oral and topical compns. comprising Boehmeria nipononivea extract and sulfur donor compound for treatment of androgenetic alopecia by regulating trophism of hair follicles and cutaneous production of sebum)
- IT Natural products, pharmaceutical
 RL: NPO (Natural product occurrence); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)

- (phenylpropanoid; oral and topical compns. comprising Boehmeria nipononivea extract and sulfur donor compound for treatment of androgenetic alopecia by regulating trophism of hair follicles and cutaneous production of sebum)
- IT Ajuga reptans
(phenylpropanoids from; oral and topical compns. comprising Boehmeria nipononivea extract and sulfur donor compound for treatment of androgenetic alopecia by regulating trophism of hair follicles and cutaneous production of sebum)
- IT Acne
Hirsutism
Seborrhea
(prevention or treatment; oral and topical compns. comprising Boehmeria nipononivea extract and sulfur donor compound for treatment of androgenetic alopecia by regulating trophism of hair follicles and cutaneous production of sebum)
- IT Sebum
(production of; oral and topical compns. comprising Boehmeria nipononivea extract and sulfur donor compound for treatment of androgenetic alopecia by regulating trophism of hair follicles and cutaneous production of sebum)
- IT Citrus paradisi
(seed extract; oral and topical compns. comprising Boehmeria nipononivea extract and sulfur donor compound for treatment of androgenetic alopecia by regulating trophism of hair follicles and cutaneous production of sebum)
- IT Organic compounds, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(sulfur-containing; oral and topical compns. comprising Boehmeria nipononivea extract and sulfur donor compound for treatment of androgenetic alopecia by regulating trophism of hair follicles and cutaneous production of sebum)
- IT Amino acids, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(sulfurated; oral and topical compns. comprising Boehmeria nipononivea extract and sulfur donor compound for treatment of androgenetic alopecia by regulating trophism of hair follicles and cutaneous production of sebum)
- IT Diet
(supplements; oral and topical compns. comprising Boehmeria nipononivea extract and sulfur donor compound for treatment of androgenetic alopecia by regulating trophism of hair follicles and cutaneous production of sebum)
- IT Alopecia
(telogenic effluvium; oral and topical compns. comprising Boehmeria nipononivea extract and sulfur donor compound for treatment of androgenetic alopecia by regulating trophism of hair follicles and cutaneous production of sebum)
- IT Drug delivery systems
(topical; oral and topical compns. comprising Boehmeria nipononivea extract and sulfur donor compound for treatment of androgenetic alopecia by regulating trophism of hair follicles and cutaneous production of sebum)
- IT 7704-34-9, Sulfur, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(donors; oral and topical compns. comprising Boehmeria nipononivea extract and sulfur donor compound for treatment of androgenetic alopecia by regulating trophism of hair follicles and cutaneous production of sebum)
- IT 9081-34-9, 5 α -Reductase

- RL: BSU (Biological study, unclassified); BIOL (Biological study) (inhibition of; oral and topical compns. comprising Boehmeria nipoanonivea extract and sulfur donor compound for treatment of androgenetic alopecia by regulating trophism of hair follicles and cutaneous production of sebum)
- IT 58-22-0, Testosterone 521-18-6, 5 α -Dihydrotestosterone
RL: BSU (Biological study, unclassified); BIOL (Biological study) (oral and topical compns. comprising Boehmeria nipoanonivea extract and sulfur donor compound for treatment of androgenetic alopecia by regulating trophism of hair follicles and cutaneous production of sebum)
- IT 117-39-5, Quercetin 327-97-9, Chlorogenic acid 331-39-5, Caffeic acid 446-72-0, Genistein 480-41-1, Naringenine 486-66-8, Daidzein 520-18-3, Kaempferol 6829-55-6D, Tocotrienol, derivs. 10597-60-1, Hydroxytyrosol 143617-02-1, Teupolioside
RL: NPO (Natural product occurrence); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses) (oral and topical compns. comprising Boehmeria nipoanonivea extract and sulfur donor compound for treatment of androgenetic alopecia by regulating trophism of hair follicles and cutaneous production of sebum)
- IT 52-90-4D, L-Cysteine, sulfurated 56-89-3D, L-Cystine, sulfurated 58-85-5 59-30-3, Folic acid, biological studies 63-68-3, L-Methionine, biological studies 63-68-3D, L-Methionine, sulfurated 67-71-0, Methylsulfonylmethane 107-35-7, Taurine 137-08-6, Calcium pantothenate 303-98-0, Ubidecarenone 334-50-9, Spermidine trihydrochloride 501-36-0, Resveratrol 7235-40-7, β -Carotene 7439-96-5D, Manganese, amino acid chelate 7440-50-8D, Copper, amino acid chelate 7440-66-6D, Zinc, amino acid chelate 8059-24-3, Vitamin B6 153302-05-7, Pronalen
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (oral and topical compns. comprising Boehmeria nipoanonivea extract and sulfur donor compound for treatment of androgenetic alopecia by regulating trophism of hair follicles and cutaneous production of sebum)
- IT 334-50-9, Spermidine trihydrochloride
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (oral and topical compns. comprising Boehmeria nipoanonivea extract and sulfur donor compound for treatment of androgenetic alopecia by regulating trophism of hair follicles and cutaneous production of sebum)
- RN 334-50-9 CAPLUS
CN 1,4-Butanediamine, N-(3-aminopropyl)-, trihydrochloride (8CI, 9CI) (CA INDEX NAME)

H₂N-(CH₂)₄-NH-(CH₂)₃-NH₂

●3 HCl

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L178 ANSWER 7 OF 33 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:393970 CAPLUS

DOCUMENT NUMBER: 142:435752

TITLE: Drugs composed of ω -polyunsaturated fatty amides

INVENTOR(S): or esters with biogenic amines or alcohols
 PATENT ASSIGNEE(S): Langlotz, Rainer
 SOURCE: Germany
 Eur. Pat. Appl., 13 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1527776	A1	20050504	EP 2004-25873	20041101
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR, IS, YU				
DE 10351111	A1	20050616	DE 2003-10351111	20031103
PRIORITY APPLN. INFO.:			DE 2003-10351111	A 20031103
AB	The invention concerns drugs that are prepared from omega-x polyunsatd. C17-C23 fatty acids (X = 3-9) and biogenic amines that are derived from natural amino acids by decarboxylation; esters with alcs. derived from amino acids are also prepared Polyunsatd. fatty acids are isolated from natural products, e.g. borage oil, evening primrose oil, red current seed oil, hemp seed oil, pine seed oil, fish oil or lard. The preparation method includes the reaction of the amine or alc. with the polyunsatd. fatty acid, isolation of the product and drug formulation. The drugs are used to treat various diseases and in cosmetic products. Thus 1,4-diaminobutene was prepared from ornithine and reacted with arachidonic acid chloride,. The 4-aminobutyl arachidonoylamide was purified by reverse HPLC. The product was mixed with the components of a base cream. The cream was topically applied and had anticonvulsive and antidepressive effect without the side effects of conventional cannabinoids.			
IC	ICM A61K031-16 ICS A61K031-215; A61K031-557; A61P043-00; A61P029-00; A61P001-00; A61P009-12; A61P011-06; A61P025-00; A61P025-02; A61P025-06; A61P025-18; A61P027-02; A61P037-06			
CC	63-4 (Pharmaceuticals) Section cross-reference(s): 1, 26			
IT	Hair preparations (growth stimulants; drugs composed of ω-polyunsatd. fatty amides or esters with biogenic amines or alcs.)			
IT	51-35-4, L-Hydroxyproline 52-90-4, L-Cysteine, reactions 56-41-7, L-Alanine, reactions 56-87-1, L-Lysine, reactions 56-89-3, L-Cystine, reactions 57-55-6, 1,2-Propanediol, reactions 60-12-8, 2-Phenylethanol 60-24-2, 2-Mercaptoethanol 61-90-5, L-Leucine, reactions 63-68-3, L-Methionine, reactions 70-26-8, Ornithine 71-00-1, L-Histidine, reactions 72-18-4, L-Valine, reactions 73-22-3, L-Tryptophan, reactions 73-32-5, L-Isoleucine, reactions 74-79-3, L-Arginine, reactions 78-83-1, Isobutanol, reactions 110-60-1, 1,4-Diaminobutane 123-51-3, Isopentanol 124-20-9, N-(3-Aminopropyl)-1,4-diaminobutane 137-32-6 147-85-3, L-Proline, reactions 306-60-5, Agmatine 501-94-0 505-10-2, 3-Methylthiopropanol 506-26-3, γ-Linolenic acid 506-32-1, Arachidonic acid 526-55-6, Tryptophol 622-40-2, 4-Morpholineethanol 872-82-2, 1H-Imidazole-4-ethanol 1553-41-9, 5,8,11,14,17-Eicosapentaenoic acid 1783-84-2 2508-29-4, 5-Aminopentanol 7019-85-4, Sciadonic acid 17581-95-2 20290-75-9, Stearidonic acid 20590-32-3, Mead acid 24257-10-1 25182-74-5, Osbond acid 34711-40-5 40499-83-0, 3-Hydroxypyrrolidine 98770-65-1, 5,8,11,14,17-Eicosapentaenoyl chloride, (all-Z)- 850895-46-4 850895-47-5			

RL: RCT (Reactant); RACT (Reactant or reagent)
 (drugs composed of ω -polyunsatd. fatty amides or esters with
 biogenic amines or alcs.)
 IT 124-20-9, N-(3-Aminopropyl)-1,4-diaminobutane
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (drugs composed of ω -polyunsatd. fatty amides or esters with
 biogenic amines or alcs.)
 RN 124-20-9 CAPLUS
 CN 1,4-Butanediamine, N-(3-aminopropyl)- (8CI, 9CI) (CA INDEX NAME)

$\text{H}_2\text{N}-(\text{CH}_2)_4-\text{NH}-(\text{CH}_2)_3-\text{NH}_2$

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L178 ANSWER 8 OF 33 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2004:252193 CAPLUS
 DOCUMENT NUMBER: 140:264534
 TITLE: Polyamine analogs that activate antizyme framshifting
 INVENTOR(S): Burns, Mark R.; Graminski, Gerard F.
 PATENT ASSIGNEE(S): Mediquest Therapeutics, Inc., USA
 SOURCE: U.S. Pat. Appl. Publ., 29 pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004058954	A1	20040325	US 2002-251819	20020923
US 6914079	B2	20050705		
US 2004209926	A1	20041021	US 2004-810649	20040329
WO 2005105729	A1	20051110	WO 2004-US9582	20040329
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.: US 2002-251819 A2 20020923

OTHER SOURCE(S): MARPAT 140:264534

AB The invention provides synthesis and use of polyamines in pharmacol.,
 cosmetic or agricultural applications. The polyamines induce antizyme
 production which in turn down regulates both the production of polyamines by
 ornithine decarboxylase (ODC) and the transport of polyamines by its
 corresponding polyamine transporter. These compds. will preferably enter
 the cell independent of the polyamine transporter. As drugs, these
 compds. are used to treat any disease associated with cellular proliferation
 including but not limited to cancer. As such, they will be useful as
 drugs to treat diseases where components of the immune system undergo
 undesired proliferation. The compds. will also be effective for the
 treatment of unwanted proliferation of hair or skin. The invention also

identifies key structural elements expected to comprise the antizyme inducing motifs of small mols. related to polyamines.

IC ICM A61K031-445
ICS A61K031-40; A61K031-137
INCL 514317000; 514408000; 514649000; 546229000; 548571000; 564336000
CC 1-12 (Pharmacology)
Section cross-reference(s): 5, 25, 62
IT **Hair** preparations
(**growth** inhibitors; polyamine analogs that activate antizyme framshifting)
IT Radiotherapy
(**hair loss**; polyamine analogs that activate antizyme framshifting)
IT **Alopecia**
Alzheimer's disease
Anti-Alzheimer's agents
Anti-inflammatory agents
Antiasthmatics
Antibacterial agents
Antidiabetic agents
Antiglaucoma agents
Antirheumatic agents
Antitumor agents
Antiulcer agents
Antiviral agents
Asthma
Autoimmune disease
Cardiovascular agents
Cosmetics
Fungicides
Gastrointestinal agents
Glaucoma (disease)
Hyperparathyroidism
Immunomodulators
Inflammation
Neoplasm
Osteoporosis
Parasiticides
Psoriasis
Rheumatoid arthritis
(polyamine analogs that activate antizyme framshifting)
IT 71-44-3, Spermine 76-83-5D, Trityl-chloride, resin-bound 107-13-1,
Acrylonitrile, reactions 124-20-9, Spermidine 539-48-0,
p-Xylylenediamine 883-44-3, N-(3-Hydroxypropyl)phthalimide 1694-92-4
211501-36-9 667453-48-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(polyamine analogs that activate antizyme framshifting)
IT 124-20-9, Spermidine
RL: RCT (Reactant); RACT (Reactant or reagent)
(polyamine analogs that activate antizyme framshifting)
RN 124-20-9 CAPLUS
CN 1,4-Butanediamine, N-(3-aminopropyl)- (8CI, 9CI) (CA INDEX NAME)

$\text{H}_2\text{N}-(\text{CH}_2)_4-\text{NH}-(\text{CH}_2)_3-\text{NH}_2$

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L178 ANSWER 9 OF 33 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:993149 CAPLUS

DOCUMENT NUMBER: 141:415596

TITLE: Method and compositions for **hair growth** stimulation with polyamines and/or ornithine decarboxylase-activating agents

INVENTOR(S): Chikasawa, Takashi; Tamai, Hideo; Yoshino, Teruhiko

PATENT ASSIGNEE(S): Lion Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 42 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004323480	A2	20041118	JP 2003-124161	20030428
PRIORITY APPLN. INFO.:			JP 2003-124161	20030428
AB The invention relates to a method for stimulation of mammal's hair growth by using a polyamine and/or an ornithine decarboxylase-activating agent, wherein the method provide excellent hair growth-stimulating effect with higher safety in continuous application. A hair growth-stimulant composition containing putrescine 0.1, DL- α -tocopherol acetate 0.2, petnaglyceri monomyristate 1, sorbitan laurate 0.5, l-menthol 0.05, benzyl nicotinate 0.001, Me paraben 0.05, fragrance q.s., and ethanol balance to 100 % was formulated.				
IC ICM A61K007-06				
ICS A61K031-132; A61K031-198; A61K031-215; A61K031-216; A61K031-4015; A61K031-4045; A61K031-7008; A61K031-7068; A61K035-64; A61K035-78; A61K038-11; A61K038-22; A61K045-00; A61P017-14				
CC 62-3 (Essential Oils and Cosmetics)				
ST polyamine hair growth stimulant; ornithine decarboxylase activating agent hair growth stimulant				
IT Hair preparations (conditioners; method and compns. for hair growth stimulation with polyamines and/or ornithine decarboxylase-activating agents)				
IT Pinus (cone exts.; method and compns. for hair growth stimulation with polyamines and/or ornithine decarboxylase-activating agents with other active components)				
IT Hair preparations (creams; method and compns. for hair growth stimulation with polyamines and/or ornithine decarboxylase-activating agents)				
IT Coleus Gentiana Sasa veitchii (exts.; method and compns. for hair growth stimulation with polyamines and/or ornithine decarboxylase-activating agents with other active components)				
IT Hair preparations (gels; method and compns. for hair growth stimulation with polyamines and/or ornithine decarboxylase-activating agents)				
IT Hair preparations (growth stimulants; method and compns. for hair growth stimulation with polyamines and/or ornithine decarboxylase-activating agents)				

- IT **Hair preparations**
(lotions; method and compns. for **hair growth** stimulation with polyamines and/or ornithine decarboxylase-activating agents)
- IT Human
Shampoos
(method and compns. for **hair growth** stimulation with polyamines and/or ornithine decarboxylase-activating agents)
- IT Royal jelly
(method and compns. for **hair growth** stimulation with polyamines and/or ornithine decarboxylase-activating agents with other active components)
- IT **Hair preparations**
(mousses; method and compns. for **hair growth** stimulation with polyamines and/or ornithine decarboxylase-activating agents)
- IT Echinoidea
(polyamines from; method and compns. for **hair growth** stimulation with polyamines and/or ornithine decarboxylase-activating agents)
- IT Amines, biological studies
RL: COS (Cosmetic use); PAC (Pharmacological activity); BIOL (Biological study); USES (Uses)
(polyamines, nonpolymeric; method and compns. for **hair growth** stimulation with polyamines and/or ornithine decarboxylase-activating agents)
- IT Meat
(pork, polyamines from; method and compns. for **hair growth** stimulation with polyamines and/or ornithine decarboxylase-activating agents)
- IT **Hair preparations**
(sprays; method and compns. for **hair growth** stimulation with polyamines and/or ornithine decarboxylase-activating agents)
- IT 9024-60-6, Ornithine decarboxylase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(method and compns. for **hair growth** stimulation with polyamines and/or ornithine decarboxylase-activating agents)
- IT 50-67-9, Serotonin, biological studies 51-48-9, Thyroxine, biological studies 71-44-3, Spermine 109-76-2, 1,3-Diaminopropane 110-60-1, Putrescine 114-25-0, Biliverdine **124-20-9**, Spermidine 147-94-4 462-94-2, Cadaverine 2216-94-6, Ethylphenylpropiolate 5534-95-2, Pentagastrin 9002-62-4, Prolactin, biological studies 11000-17-2, Vasopressin 18883-66-4, Streptozotocin
RL: COS (Cosmetic use); **PAC (Pharmacological activity)**; BIOL (Biological study); USES (Uses)
(method and compns. for **hair growth** stimulation with polyamines and/or ornithine decarboxylase-activating agents)
- IT 122636-37-7, Pentadecanoic acid glyceride
RL: COS (Cosmetic use); PAC (Pharmacological activity); BIOL (Biological study); USES (Uses)
(method and compns. for **hair growth** stimulation with polyamines and/or ornithine decarboxylase-activating agents with other active components)
- IT **124-20-9**, Spermidine
RL: COS (Cosmetic use); **PAC (Pharmacological activity)**; BIOL (Biological study); USES (Uses)
(method and compns. for **hair growth** stimulation with polyamines and/or ornithine decarboxylase-activating agents)
- RN 124-20-9 CAPLUS

CN 1,4-Butanediamine, N-(3-aminopropyl)- (8CI, 9CI) (CA INDEX NAME)



L178 ANSWER 10 OF 33 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:991310 CAPLUS

DOCUMENT NUMBER: 140:31162

TITLE: Use of an agent mimicking dopachrome tautomerase (Trp-2) activity as protective agent for hair follicle melanocytes and uses thereof

INVENTOR(S): Commo, Stephane; Gaillard, Olivier; Bernard, Bruno

PATENT ASSIGNEE(S): L'oreal, Fr.

SOURCE: PCT Int. Appl., 32 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003103616	A2	20031218	WO 2003-FR1729	20030610
WO 2003103616	A3	20040415		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
FR 2840531	A1	20031212	FR 2002-7137	20020611
FR 2840531	B1	20041029		
CA 2487945	AA	20031218	CA 2003-2487945	20030610
EP 1515688	A2	20050323	EP 2003-757134	20030610
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 2005186233	A1	20050825	US 2004-9153	20041213
PRIORITY APPLN. INFO.:				
			FR 2002-7137	A 20020611
			US 2002-389708P	P 20020619
			WO 2003-FR1729	W 20030610

AB The invention concerns the cosmetic use of an agent mimicking dopachrome tautomerase (Trp-2) activity as protective agent for hair follicle melanocytes and its use, in particular for fighting against canities. The invention also concerns specific cosmetic compns. for fighting against canities comprising in a cosmetically acceptable medium at least an agent mimicking dopachrome tautomerase (Trp-2) activity and their uses. The invention further concerns a method for treating canities and a method for preserving natural pigmentation of gray or white hair and/or hairs by applying a cosmetic composition comprising at least one agent mimicking dopachrome tautomerase activity. Finally, the invention concerns a method for identifying at least one agent mimicking dopachrome tautomerase (Trp-2) activity and a method for evaluating its cytoprotective activity. A hair lotion contained dopachrome tautomerase 0.5, propylene glycol 20, ethanol 30 and water q.s. 100 g.

IC ICM A61K007-06
CC 62-3 (Essential Oils and Cosmetics)
ST dopachrome tautomerase mimicking agent **hair** follicle whitening
IT Steroids, biological studies
RL: COS (Cosmetic use); PAC (Pharmacological activity); BIOL (Biological study); USES (Uses)
(amino; cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)
IT Antioxidants
Cytoprotective agents
Melanocyte
Microspheres
Shampoos
(cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)
IT Polysiloxanes, biological studies
RL: COS (Cosmetic use); PAC (Pharmacological activity); BIOL (Biological study); USES (Uses)
(cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)
IT Amines, biological studies
RL: COS (Cosmetic use); PAC (Pharmacological activity); BIOL (Biological study); USES (Uses)
(diamines; cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)
IT **Hair**
(follicle; cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)
IT **Hair** preparations
(gels; cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)
IT **Hair** preparations
(lotions; cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)
IT Drug delivery systems
(nanocapsules; cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)
IT Nanostructures
Spheres
(nanospheres; cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)
IT Amines, biological studies
RL: COS (Cosmetic use); PAC (Pharmacological activity); BIOL (Biological study); USES (Uses)
(polyamines, nonpolymeric; cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)
IT Amines, biological studies
RL: COS (Cosmetic use); PAC (Pharmacological activity); BIOL (Biological study); USES (Uses)
(steroidal; cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)
IT Amines, biological studies
RL: COS (Cosmetic use); PAC (Pharmacological activity); BIOL (Biological study); USES (Uses)
(triamines; cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)
IT **Hair**

(whiteness; cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)

IT 9054-89-1, Superoxide dismutase
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)

IT 50-81-7D, Ascorbic acid, derivs. 50-81-7D, Vitamin c, reaction products with mono and diesters of cinnamic acid 63-68-3, Methionine, biological studies 71-00-1, Histidine, biological studies 71-44-3, Spermine 73-22-3, Tryptophane, biological studies 110-60-1, Putrescine 117-39-5, Quercetine 121-79-9, Propyl gallate 124-20-9, Spermidine 529-35-1D, derivs. 621-82-9D, Cinnamic acid, esters, reaction products with vitamin C 3376-24-7 12619-70-4D, Cyclodextrin, derivs. 53177-12-1, Euk-8 53188-07-1, Trolox 60940-34-3, Ebselen 64855-91-0D, derivs. 85153-23-7D, derivs. 187536-23-8D, derivs.
 RL: COS (Cosmetic use); **PAC (Pharmacological activity)**; BIOL (Biological study); USES (Uses)
 (cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)

IT 15663-27-1, Cisplatin
 RL: **PAC (Pharmacological activity)**; BIOL (Biological study)
 (cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)

IT 130122-81-5, Dopachrome tautomerase
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (mimicking agents; cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)

IT 124-20-9, Spermidine
 RL: COS (Cosmetic use); **PAC (Pharmacological activity)**; BIOL (Biological study); USES (Uses)
 (cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)

RN 124-20-9 CAPLUS
 CN 1,4-Butanediamine, N-(3-aminopropyl)- (8CI, 9CI) (CA INDEX NAME)

$\text{H}_2\text{N}-(\text{CH}_2)_4-\text{NH}-(\text{CH}_2)_3-\text{NH}_2$

L178 ANSWER 11 OF 33 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:132928 CAPLUS

DOCUMENT NUMBER: 138:180759

TITLE: Polyamines and analogs for protecting cells during cancer chemotherapy and radiotherapy

INVENTOR(S): Fahl, William E.; Kink, John A.

PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, USA

SOURCE: PCT Int. Appl., 71 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003013245	A1	20030220	WO 2002-US25216	20020807
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,				

GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU,
TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,
CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,
NE, SN, TD, TG

US 2003118539 A1 20030626 US 2002-214917 20020807
PRIORITY APPLN. INFO.: US 2001-310634P P 20010807
US 2001-317768P P 20010906
US 2001-337382P P 20011105
US 2001-342932P P 20011220

AB Polyamine effectors are administered locally to provide protection against the adverse side-effects of chemotherapy or radiation therapy, such as **alopecia**, mucositis and dermatitis. Pharmaceutical preps. comprising one or more polyamine effectors formulated for topical or local delivery to epithelial or mucosal cells are disclosed. Methods of administering the pharmaceutical preps. are also disclosed.

IC ICM A01N037-18

ICS A61K038-00; A61K007-06

CC 1-12 (Pharmacology)

Section cross-reference(s): 63

ST polyamine analog cytoprotection **alopecia** dermatitis cancer chemotherapy radiotherapy

IT 56-18-8, Norspermidine 71-44-3, Spermine 74-79-3, L-Arginine, biological studies 110-60-1, Putrescine 124-20-9, Spermidine 306-60-5, Agmatine 462-94-2, Cadaverine 48047-94-5, α -Methylornithine 53054-07-2 70052-12-9, DFMO 121749-39-1, BE-3-3-3 206991-40-4, SL-11038 206991-58-4, SL-11044 206991-64-2, SL-11047 217093-92-0, SL 11091 217093-95-3, SL 11094 304910-89-2, SL-11101 304910-90-5, SL-11103 304910-93-8, SL 11122 304911-01-1, SL 11092 304911-06-6, SL 11141 304911-07-7, SL 11144 306292-64-8, SL-11093 306292-66-0, SL-11099 306292-68-2, SL-11102 412351-17-8, SL-11158 412351-18-9, SL-11159 412351-19-0, SL-11160

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(polyamines and analogs for protecting cells during cancer chemotherapy and radiotherapy)

IT 124-20-9, Spermidine

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(polyamines and analogs for protecting cells during cancer chemotherapy and radiotherapy)

RN 124-20-9 CAPLUS

CN 1,4-Butanediamine, N-(3-aminopropyl)- (8CI, 9CI) (CA INDEX NAME)

$\text{H}_2\text{N}-(\text{CH}_2)_4-\text{NH}-(\text{CH}_2)_3-\text{NH}_2$

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L178 ANSWER 12 OF 33 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:971738 CAPLUS

DOCUMENT NUMBER: 140:23273

TITLE: N-Acetyl cysteine and its topical use

INVENTOR(S): Yu, Ruey J.; Van Scott, Eugene J.

PATENT ASSIGNEE(S): USA
 SOURCE: U.S. Pat. Appl. Publ., 8 pp., Cont.-in-part of U.S.
 Pat. Appl. 2003 198,656.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 3
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003229141	A1	20031211	US 2003-462885	20030617
US 6159485	A	20001212	US 1999-227213	19990108
EP 1570840	A2	20050907	EP 2004-29094	20000107
EP 1570840	A3	20051116		
R: DE, ES, FR, GB, IT				
US 6524593	B1	20030225	US 2000-560901	20000428
US 2003198656	A1	20031023	US 2003-371504	20030221
US 6808716	B2	20041026		

PRIORITY APPLN. INFO.:
 US 1999-227213 A1 19990108
 US 2000-560901 A2 20000428
 US 2003-371504 A2 20030221
 EP 2000-902347 A3 20000107

AB Methods to alleviate or improve various cosmetic conditions and dermatol. disorders, including changes or damage to skin, nail and hair associated with intrinsic aging and/or extrinsic aging, as well as changes or damage caused by extrinsic factors using compns. comprising N-acetyl-cysteine (isomeric or non-isomeric forms) and/or free acid, salt, lactone, amide or ester forms of N-acetyl-cysteine are described. The methods provided may also comprise application of a composition further containing various cosmetic, pharmaceutical or other topical agents to enhance or create synergetic effects.

IC ICM A61K031-22
 ICS A61K031-16; A61K031-198
 INCL 514550000; 514562000; 514626000
 CC 1-12 (Pharmacology)

Section cross-reference(s): 62

IT Hair preparations
 (antidandruff; acetyl cysteine and its topical use)

IT Hair preparations
 (conditioners; acetyl cysteine and its topical use)

IT 50-02-2, Dexamethasone 50-03-3, Hydrocortisone 21-acetate 50-23-7, Hydrocortisone 50-28-2, Estradiol, biological studies 50-48-6, Amitriptyline 50-78-2, Acetylsalicylic acid 50-81-7, Ascorbic acid, biological studies 51-03-6, Piperonyl butoxide 51-21-8, 5-Fluorouracil 51-55-8, Atropine, biological studies 53-43-0, Dehydroepiandrosterone 53-86-1, Indomethacin 55-56-1, Chlorhexidine 57-13-6, Urea, biological studies 57-63-6, Ethinyl estradiol 58-73-1, Diphenhydramine 58-95-7, Vitamin E acetate 59-33-6, Pyrillamine maleate 59-42-7, Phenylephrine 59-46-1, Procaine 60-54-8, Tetracycline 64-65-3, Bemegride 65-45-2, Salicylamide 67-73-2, Fluocinolone acetonide 67-78-7, Triamcinolone diacetate 68-26-8, Retinol 68-35-9, Sulfadiazine 68-41-7, Cycloserine 68-88-2, Hydroxyzine 69-72-7, Salicylic acid, biological studies 70-18-8, Glutathione, biological studies 70-18-8D, Glutathione, derivs. 76-22-2, Camphor 76-25-5, Triamcinolone acetonide 79-81-2, Retinyl palmitate 84-22-0, Tetrahydrozoline 86-21-5, Pheniramine 86-22-6, Brompheniramine 89-83-8, Thymol 90-45-9, Aminacrine 90-82-4, Pseudoephedrine 93-14-1, Guaifenesin 93-60-7, Methyl nicotinate 94-36-0, Benzoyl peroxide, biological studies 96-88-8, Mepivacaine 103-16-2, Monobenzone 108-46-3, Resorcinol,

biological studies 108-95-2, Phenol, biological studies 112-38-9, Undecylenic acid 113-92-8, Chlorpheniramine maleate 114-07-8, Erythromycin 116-31-4, Retinal 118-56-9, Homosalate 118-60-5, Octyl salicylate 119-36-8, Methyl salicylate 119-61-9, Benzophenone, biological studies 123-31-9, Hydroquinone, biological studies 123-31-9D, Hydroquinone, monoether 123-99-9, Azelaic acid, biological studies 124-43-6, Carbamide peroxide 126-07-8, Griseofulvin 127-47-9, Retinyl acetate 130-26-7, Clioquinol 131-57-7, Oxybenzone 136-47-0 136-77-6, Hexylresorcinol 137-58-6, Lidocaine 137-66-6, Ascorbyl palmitate 139-12-8, Aluminum acetate 140-65-8, Pramoxine 302-79-4, Retinoic acid 356-12-7, Fluocinonide 382-67-2, Desoximetasone 404-86-4, Capsaicin 443-48-1, Metronidazole 483-63-6, Crotamiton 486-12-4, Triprolidine 501-30-4, Kojic acid 518-28-5, Podofilox 525-66-6, Propranolol 536-43-6, Dyclonine 562-10-7 569-65-3, Meclizine 616-91-1, N-Acetylcysteine 721-50-6, Prilocaine 768-94-5, Amantadine 777-11-7, Haloprogin 880-52-4 1143-38-0, Anthralin 1319-82-0, Aminocaproic acid 1321-11-5, Aminobenzoic acid 1321-23-9, Chloroxylenol 1327-41-9, Aluminum chlorohydroxide 1400-61-9, Nystatin 1405-87-4, Bacitracin 1490-04-6, Menthol 1491-59-4, Oxymetazoline 1668-19-5, Doxepin 2013-58-3, Meclocycline 2152-44-5, Betamethasone valerate 2398-96-1, Tolnaftate 3380-34-5, Triclosan 4759-48-2, Retinoic acid, 13-cis 5466-77-3, Octyl methoxycinnamate 5534-09-8, Beclomethasone dipropionate 5593-20-4, Betamethasone dipropionate 5611-51-8, Triamcinolone hexacetonide 7446-70-0, Aluminum chloride, biological studies 7652-46-2, N-Acetyl-L-cysteine methyl ester 7704-34-9, Sulfur, biological studies 7722-84-1, Hydrogen peroxide, biological studies 8029-68-3, Ichthammol 9012-76-4, Chitosan 10118-90-8, Minocycline 12650-69-0, Mupirocin 13463-41-7, Zinc pyrithione 13609-67-1, Hydrocortisone 17-butyrate 13889-98-0, N-Acetylpiperazine 14114-64-8 14838-15-4, Phenylpropanolamine 15686-51-8, Clemastine 15687-27-1, Ibuprofen 16110-51-3, Cromolyn 16265-37-5, N-Acetyladenosine 18323-44-9, Clindamycin 18559-94-9, Albuterol 19547-88-7 19962-37-9 21245-02-3, Padimate O 21645-51-2, Aluminum hydroxide, biological studies 22071-15-4, Ketoprofen 22204-53-1, Naproxen 22916-47-8, Miconazole 23593-75-1, Clotrimazole 25122-46-7, Clobetasol propionate 25168-11-0, Acetylspermidine 25655-41-8, Povidone iodine 27220-47-9, Econazole 28088-64-4, Aminosalicyclic acid 29342-05-0, Ciclopirox 38304-91-5, Minoxidil 38396-39-3, Bupivacaine 38520-57-9 52485-51-5 52645-53-1, Permethrin 56093-45-9, Selenium sulfide 56805-18-6 57524-89-7, Hydrocortisone 17-valerate 59277-89-3, Acyclovir 59587-09-6, N-Acetyl-L-cysteine ethyl ester 61318-90-9, Sulconazole 61906-52-3, Acetylspermine 64211-45-6, Oxiconazole 64872-76-0, Butoconazole 65277-42-1, Ketoconazole 65472-88-0, Naftifine 65899-73-2, Tioconazole 66734-13-2, Aclovate 67607-91-4 67915-31-5, Terconazole 73255-51-3, N-Acetyl-L-cysteine isopropyl ester 91161-71-6, Terbinafine 99011-02-6, Imiquimod 106685-40-9, Adapalene 112965-21-6, Calcipotriene 118292-40-3, Tazarotene 318471-38-4

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(acetyl cysteine and its topical use)

IT 25168-11-0, Acetylspermidine
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(acetyl cysteine and its topical use)

RN 25168-11-0 CAPLUS

CN 1,4-Butanediamine, N-(3-aminopropyl)-, N-acetyl deriv. (8CI, 9CI) (CA INDEX NAME)

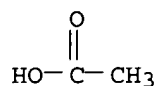
CM 1

CRN 124-20-9
CMF C7 H19 N3



CM 2

CRN 64-19-7
CMF C2 H4 O2



L178 ANSWER 13 OF 33 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:971575 CAPLUS

DOCUMENT NUMBER: 140:31172

TITLE: Cosmetic composition containing an agent mimicking the activity of dopachrome tautomerase (Trp-2) to prevent **hair** whitening

INVENTOR(S): Commo, Stephane; Gaillard, Olivier; Bernard, Bruno

PATENT ASSIGNEE(S): L'oreal, Fr.

SOURCE: Fr. Demande, 39 pp.

CODEN: FRXXBL

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2840531	A1	20031212	FR 2002-7137	20020611
FR 2840531	B1	20041029		
CA 2487945	AA	20031218	CA 2003-2487945	20030610
WO 2003103616	A2	20031218	WO 2003-FR1729	20030610
WO 2003103616	A3	20040415		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1515688	A2	20050323	EP 2003-757134	20030610
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 2005186233	A1	20050825	US 2004-9153	20041213
PRIORITY APPLN. INFO.:				
			FR 2002-7137	A 20020611
			US 2002-389708P	P 20020619
			WO 2003-FR1729	W 20030610

- AB A cosmetic composition to fight against the hair whiteness contains an agent mimicking the activity of dopachrome tautomerase (Trp-2). The invention refers moreover to a method for identifying an agent mimicking the activity of Trp-2. Expression of Trp-2 in melanocytes from human hair follicles and epidermis is studied. A hair lotion contained Trp-2 0.5, propylene glycol 20, ethanol 30, and water q.s. 100 g.
- IC ICM A61K007-06
- CC 62-4 (Essential Oils and Cosmetics)
- ST cosmetic dopachrome tautomerase mimicking agent **hair** whiteness
- IT Steroids, biological studies
RL: COS (Cosmetic use); PAC (Pharmacological activity); BIOL (Biological study); USES (Uses)
(amino; cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)
- IT Antioxidants
Melanocyte
Microspheres
Shampoos
(cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)
- IT Polyamines
Polysiloxanes, biological studies
RL: COS (Cosmetic use); PAC (Pharmacological activity); BIOL (Biological study); USES (Uses)
(cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)
- IT Amines, biological studies
RL: COS (Cosmetic use); PAC (Pharmacological activity); BIOL (Biological study); USES (Uses)
(diamines; cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)
- IT **Hair**
(follicle; cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)
- IT **Hair** preparations
(gels; cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)
- IT **Hair** preparations
(lotions; cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)
- IT Drug delivery systems
(nanocapsules; cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)
- IT Nanostructures
Spheres
(nanospheres; cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)
- IT Amines, biological studies
RL: COS (Cosmetic use); PAC (Pharmacological activity); BIOL (Biological study); USES (Uses)
(steroidal; cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)
- IT Amines, biological studies
RL: COS (Cosmetic use); PAC (Pharmacological activity); BIOL (Biological study); USES (Uses)
(triamines; cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)

IT **Hair**
 (whiteness; cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)

IT 9054-89-1, Superoxide dismutase
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)

IT 50-81-7D, Ascorbic acid, derivs. 50-81-7D, Vitamin C, reaction products with mono- and diesters of cinnamic acid 63-68-3, Methionine, biological studies 71-00-1, Histidine, biological studies 71-44-3, Spermine 73-22-3, Tryptophane, biological studies 110-60-1, Putrescine 117-39-5, Quercetine 121-79-9, Propyl gallate **124-20-9**, Spermidine 529-35-1D, derivs. 621-82-9D, Cinnamic acid, esters, reaction products with vitamin C 3376-24-7 12619-70-4D, Cyclodextrin, derivs. 53177-12-1, Euk-8 53188-07-1, Trolox 60940-34-3, Ebselen 64855-91-0D, derivs. 85153-23-7D, derivs. 187536-23-8D, derivs.
 RL: COS (Cosmetic use); **PAC (Pharmacological activity)**; BIOL (Biological study); USES (Uses)
 (cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)

IT 130122-81-5, Dopachrome tautomerase
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (mimicking agents; cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)

IT **124-20-9**, Spermidine
 RL: COS (Cosmetic use); **PAC (Pharmacological activity)**; BIOL (Biological study); USES (Uses)
 (cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)

RN 124-20-9 CAPLUS
 CN 1,4-Butanediamine, N-(3-aminopropyl)- (8CI, 9CI) (CA INDEX NAME)

$\text{H}_2\text{N}-(\text{CH}_2)_4-\text{NH}-(\text{CH}_2)_3-\text{NH}_2$

REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L178 ANSWER 14 OF 33 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:521684 CAPLUS

DOCUMENT NUMBER: 137:88483

TITLE: Hydrophobic polyamine analogs and methods for their use

INVENTOR(S): Burns, Mark Robert; Graminski, Gerard F.; Banduir, Nand

PATENT ASSIGNEE(S): Oridigm Corporation, USA

SOURCE: PCT Int. Appl., 91 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002053519	A2	20020711	WO 2002-US347	20020108
WO 2002053519	A3	20030313		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,

CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
 GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
 LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
 PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
 UA, UG, US, UZ, VN, YU, ZA, ZM, ZW
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
 CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
 BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
 CA 2433807 AA 20020711 CA 2002-2433807 20020108
 EP 1373185 A2 20040102 EP 2002-717293 20020108
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
 CN 1511137 A 20040707 CN 2002-803508 20020108
 JP 2004529082 T2 20040924 JP 2002-554639 20020108
 US 2003187276 A1 20031002 US 2002-296259 20021121
 US 6963010 B2 20051108
 US 2005176828 A1 20050811 US 2005-50789 20050127
 US 2005245615 A1 20051103 US 2005-62481 20050223
 PRIORITY APPLN. INFO.: US 2001-260415P P 20010108
 WO 2002-US347 W 20020108
 US 2002-296259 A1 20021121

OTHER SOURCE(S): MARPAT 137:88483

AB The invention provides polyamine analogs and derivs. containing a hydrophobic region and a polyamine region, as well as methods and compns. for their use. The compds. of the invention can be used e.g. to treat cancer osteoporosis, asthma, etc.

IC ICM C07C

CC 1-12 (Pharmacology)

Section cross-reference(s): 63

IT Hearing loss

(chemotherapeutic-induced; hydrophobic polyamine analogs and use)

IT Hair preparations

(growth inhibitors; hydrophobic polyamine analogs and use)

IT Chemotherapy

(hearing loss from; hydrophobic polyamine analogs and use)

IT Ear

(organ of Corti, hair cell; hydrophobic polyamine analogs and use)

IT 56-84-8D, L-Aspartic acid, derivs. 56-86-0D, L-Glutamic acid, derivs.
 56-87-1D, L-Lysine, derivs. 70-26-8D, Ornithine, derivs. 71-44-3D,
 Spermine, derivs. 110-60-1D, Putrescine, derivs. 124-20-9D,
 Spermidine, derivs. 305-62-4D, 2,4-Diaminobutyric acid, derivs.
 70052-12-9, α -Difluoromethylornithine 134951-06-7 330162-58-8

330162-75-9 330162-76-0 330163-03-6 441022-65-7 441022-68-0

441022-71-5 441022-72-6 441022-73-7 441022-74-8 441022-75-9

441022-76-0 441022-78-2 441022-80-6 441022-81-7 441022-82-8

441022-83-9 441022-84-0 441022-85-1 441022-86-2 441022-87-3

441022-88-4 441022-89-5 441022-90-8 441022-91-9 441022-92-0

441022-93-1 441022-94-2 441022-95-3 441022-96-4 441022-98-6

441023-00-3 441023-02-5 441023-04-7 441023-06-9 441023-08-1

441023-10-5 441023-12-7 441023-13-8 441023-15-0 441023-17-2

441023-19-4 441023-21-8 441023-22-9 441023-23-0 441023-24-1

441023-25-2 441023-26-3 441023-27-4 441023-28-5 441023-59-2

441023-60-5 441023-61-6 441023-62-7 441023-63-8 441023-64-9

441023-65-0 441023-66-1 441023-67-2 441023-68-3 441023-69-4

441023-70-7 441023-71-8 441023-72-9 441023-73-0 441023-74-1

441023-75-2 441023-76-3 441023-77-4 441023-78-5 441023-79-6

441764-81-4 441764-82-5 441764-83-6

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(hydrophobic polyamine analogs and use)
 IT 124-20-9D, Spermidine, derivs.
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (hydrophobic polyamine analogs and use)
 RN 124-20-9 CAPLUS
 CN 1,4-Butanediamine, N-(3-aminopropyl)- (8CI, 9CI) (CA INDEX NAME)

$\text{H}_2\text{N}-(\text{CH}_2)_4-\text{NH}-(\text{CH}_2)_3-\text{NH}_2$

L178 ANSWER 15 OF 33 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:773365 CAPLUS

DOCUMENT NUMBER: 138:320377

TITLE: The effects of intradermal injections of spermidine on the **growth** rate of fibres and mitosis of wool follicles in Merino lambs

AUTHOR(S): Liut, S. M.; Murray, A.; Schlink, A. C.; Mata, G.; Masters, D. G.

CORPORATE SOURCE: CSIRO Livestock Industries, Wembley, WA, 6913, Australia

SOURCE: Animal Science (2002), 75(1), 33-40
 CODEN: ANSCFO; ISSN: 1357-7298

PUBLISHER: British Society of Animal Science

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Polyamines (putrescine, spermidine and spermine) are required for optimal growth in all cells, and are essential for cell proliferation and growth of cultured wool follicles, with an optimal concentration of spermidine required

for the fiber elongation. The effects of a local supply of exogenous spermidine on the rate of cell division in the wool follicles, the length growth rate and diameter of fibers were therefore examined in Merino lambs. Three groups of eight lambs (40 kg) were given food at 1.2 + maintenance. Spermidine was injected intradermally into a small patch (3 + 3 cm) on the left flank three times per day for 7 days at one of three concns.: 1.38, 2.75 or 4.58 μmol in 0.8 mL volume. The same volume of saline was injected into the contralateral side as a control. The concentration

of spermidine in the skin patch 3 h after injection on day 7 increased by proportionately 0.18, 0.33 or 0.41 ($P < 0.001$) resp. The rates of cell division in the follicle bulb 3 h after the spermidine injection were proportionately 0.104, 0.184 and 0.283 higher compared with the contralateral side ($P = 0.078$ overall) for the low, medium and high doses of spermidine resp. and differed between the three doses ($P < 0.05$). The fiber length growth rate, as measured using autoradiog., was proportionately 0.099, 0.117 and 0.156 higher than that of the contralateral side ($P < 0.001$ overall) for the low, medium and high doses of spermidine resp., but differences between doses were not significant ($P > 0.05$). Spermidine injection did not result in a significant change in fiber diameter during the treatment period. The ratio of fiber length growth rate to fiber diameter was increased by the injection of spermidine ($P < 0.001$). The results suggest that injecting extra spermidine into the skin altered spermidine homeostasis in the skin, stimulated cell proliferation and resulted in increased fiber growth.

CC 18-6 (Animal Nutrition)

ST intradermal spermidine wool follicle **growth** mitosis sheep

IT Ovis aries

(Merino sheep; effects of intradermal injections of spermidine on **growth** rate of fibers and mitosis of wool follicles in Merino lambs)

IT Cell proliferation
Mitosis
Skin
Wool
(effects of intradermal injections of spermidine on **growth** rate of fibers and mitosis of wool follicles in Merino lambs)

IT **Hair**
(follicle; effects of intradermal injections of spermidine on **growth** rate of fibers and mitosis of wool follicles in Merino lambs)

IT **124-20-9, Spermidine**
RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)
(effects of intradermal injections of spermidine on **growth** rate of fibers and mitosis of wool follicles in Merino lambs)

IT **124-20-9, Spermidine**
RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)
(effects of intradermal injections of spermidine on **growth** rate of fibers and mitosis of wool follicles in Merino lambs)

RN 124-20-9 CAPLUS

CN 1,4-Butanediamine, N-(3-aminopropyl)- (8CI, 9CI) (CA INDEX NAME)

H₂N-(CH₂)₄-NH-(CH₂)₃-NH₂

REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L178 ANSWER 16 OF 33 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:730528 CAPLUS
DOCUMENT NUMBER: 135:278003
TITLE: Compositions and methods for gene therapy
INVENTOR(S): Vogel, Jean-marie; Boschetti, Egisto
PATENT ASSIGNEE(S): Biosphere Medical Inc., USA
SOURCE: PCT Int. Appl., 77 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001072280	A2	20011004	WO 2001-US9618	20010323
WO 2001072280	A3	20020131		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
US 2003212022	A1	20031113	US 2002-220983	20021212

PRIORITY APPLN. INFO.: US 2000-191902P P 20000324
WO 2001-US9618 W 20010323

AB The present invention relates to injectable compns. comprising biocompatible, swellable, substantially hydrophilic, non-toxic and substantially spherical polymeric material carriers which are capable of efficiently delivering bioactive therapeutic factor(s) phys. linked to a transfection agent for use in embolization gene therapy. The present invention further relates to methods of embolization gene therapy, particularly for the treatment of angiogenic and non-angiogenic-dependent diseases, using the injectable compns.

IC ICM A61K009-00

CC 63-5 (Pharmaceuticals)
Section cross-reference(s): 8

IT Leukemia
(**hairy**-cell; compns. and methods for embolization gene therapy)

IT 71-44-3, Spermine **124-20-9**, Spermidine 557-75-5D, Vinyl alcohol, polymers 2462-63-7, Dope 4004-05-1, Dope 9002-98-6, Polyethylenimine 9003-01-4D, Polyacrylic acid, derivs. 9003-05-8D, Polyacrylamide, derivs. 24937-78-8, Poly(ethylene vinyl acetate) 25104-18-1, Polylysine 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26100-51-6, Poly(lactic acid) 26913-06-4, Polyethylenimine 38000-06-5, Polylysine 124050-77-7, Transfectam 124076-29-5 127528-05-6 128835-92-7, Lipofectin 137056-72-5, dc-chol 144189-73-1, Dotap 145310-87-8, Transfectace
RL: PEP (Physical, engineering or chemical process); **THU (Therapeutic use)**; BIOL (Biological study); PROC (Process); USES (Uses)
(compns. and methods for embolization gene therapy)

IT **124-20-9**, Spermidine
RL: PEP (Physical, engineering or chemical process); **THU (Therapeutic use)**; BIOL (Biological study); PROC (Process); USES (Uses)
(compns. and methods for embolization gene therapy)

RN 124-20-9 CAPLUS

CN 1,4-Butanediamine, N-(3-aminopropyl)- (8CI, 9CI) (CA INDEX NAME)



L178 ANSWER 17 OF 33 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1996:761926 CAPLUS

DOCUMENT NUMBER: 126:26854

TITLE: S-adenosyl methionine regulation of metabolic pathways and its use in diagnosis and therapy

INVENTOR(S): Schwartz, Dennis E.; Vermeulen, Nicolaas M. J.; O'Day, Christine L.

PATENT ASSIGNEE(S): Oridigm Corporation, USA; Schwartz, Dennis E.; Vermeulen, Nicolaas M., J.; O'day, Christine L.

SOURCE: PCT Int. Appl., 140 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9633703	A2	19961031	WO 1996-US5799	19960425
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE,				

ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI

RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN

US 6020139	A	20000201	US 1995-428963	19950425
CA 2217696	AA	19961031	CA 1996-2217696	19960425
AU 9657156	A1	19961118	AU 1996-57156	19960425
AU 721067	B2	20000622		
EP 824345	A1	19980225	EP 1996-915362	19960425

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI

JP 11506426	T2	19990608	JP 1996-532723	19960425
EP 1221615	A2	20020710	EP 2002-5785	19960425

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI

US 6596701	B1	20030722	US 1998-930128	19980316
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PRIORITY APPLN. INFO.:

			US 1995-428963	A 19950425
			US 1995-476447	A2 19950607
			EP 1996-915362	A3 19960425
			WO 1996-US5799	W 19960425

AB This invention concerns designing anal., diagnostic, and therapeutic protocols and agents for such disease states and conditions through recognition of the central role of S-adenosyl-L-methionine and its metabolic pathways in controlling cell metabolism, cell growth, and intracellular communications.

IC ICM A61K031-00

ICS A61K033-00; A61K038-00; A61K039-00; A61K045-00; A61K045-05; A61K049-00; A61K051-00; C07C321-00; C07C323-00; C07C381-00; C07D211-72; C07D211-84; C07D231-56; C07D235-01; C07H019-00; C07H019-207; C07H021-00; C12N009-00; C12P001-00

CC 1-12 (Pharmacology)

Section cross-reference(s): 9, 14, 63

IT **Alopecia**
(male pattern; adenosylmethionine regulation of metabolic pathways and its use in diagnosis and therapy)

IT 50-81-7, Ascorbic acid, biological studies 58-61-7, Adenosine, biological studies 58-85-5, Biotin 63-68-3, Methionine, biological studies 70-26-8, Ornithine 71-44-3, Spermine 74-79-3, Arginine, biological studies 74-85-1, Ethene, biological studies 87-89-8, myo-Inositol 98-92-0, Nicotinamide 110-60-1, Putrescine 124-20-9, Spermidine 22059-21-8, 1-Aminocyclopropanecarboxylic acid 24346-00-7, S-Adenosyl-L-methionine chloride 29908-03-0, S-Adenosyl-L-methionine 57072-36-3, Queuosine 61912-98-9, Insulin-like growth factor 62229-50-9, Epidermal growth factor 72496-59-4, Queuine 87186-02-5, S-Adenosyl-L-methionine sulfate 106096-93-9, Basic fibroblast growth factor 141436-78-4, Protein kinase C

RL: **BAC (Biological activity or effector, except adverse)**; BPR (Biological process); BSU (Biological study, unclassified); **THU (Therapeutic use)**; BIOL (Biological study); PROC (Process); USES (Uses)
(adenosylmethionine regulation of metabolic pathways and its use in diagnosis and therapy)

IT 124-20-9, Spermidine

RL: **BAC (Biological activity or effector, except adverse)**; BPR (Biological process); BSU (Biological study, unclassified); **THU (Therapeutic use)**; BIOL (Biological study); PROC (Process); USES (Uses)
(adenosylmethionine regulation of metabolic pathways and its use in diagnosis and therapy)

RN 124-20-9 CAPLUS
 CN 1,4-Butanediamine, N-(3-aminopropyl)- (8CI, 9CI) (CA INDEX NAME)



L178 ANSWER 18 OF 33 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1996:584148 CAPLUS
 DOCUMENT NUMBER: 125:204581
 TITLE: Formulations and methods for reducing skin irritation
 INVENTOR(S): Hahn, Gary Scott; Thueson, David Orel
 PATENT ASSIGNEE(S): Cosmederm Technologies, USA
 SOURCE: PCT Int. Appl., 59 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9623490	A1	19960808	WO 1996-US1289	19960202
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE				
CA 2212127	AA	19960808	CA 1996-2212127	19960202
AU 9648611	A1	19960821	AU 1996-48611	19960202
EP 806947	A1	19971119	EP 1996-904530	19960202
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
JP 10513452	T2	19981222	JP 1996-523692	19960202
PRIORITY APPLN. INFO.: US 1995-384263 A 19950203				
WO 1996-US1289 W 19960202				
AB	Compns. and formulations containing multi-protonated organic polyamines (such as amino acids with amine-containing side groups) and methods of using the same for inhibiting skin irritation in animals, are disclosed. A topical composition containing 7.5 % lactic acid (as skin irritant) and 250 mM spermine·4HCl (as skin anti-irritant) was tested among volunteers to show 52 % inhibition of skin irritation such as burning, itching, erythema.			
IC	ICM A61K031-13			
CC	63-6 (Pharmaceuticals)			
Section cross-reference(s): 62				
IT	Analgesics Antibiotics Antiperspirants Contraceptives Cosmetics Deodorants Hair preparations Insect repellents Mouthwashes Sunburn and Suntan Sunscreens (polyamines with protonated amino moieties for reducing skin irritation)			

from topical preps.)

IT 56-87-1, L-Lysine, biological studies 70-26-8, Ornithine 71-00-1, L-Histidine, biological studies 71-44-3, Spermine 74-79-3, Arginine, biological studies 110-60-1, 1,4-Butanediamine 110-85-0, Piperazine, biological studies 124-20-9, Spermidine 156-86-5, Homoarginine 157-06-2, D-Arginine 288-32-4, Imidazole, biological studies 305-84-0, Carnosine 306-67-2, Spermine tetrahydrochloride 333-93-7, Putrescine dihydrochloride 351-50-8, D-Histidine 372-75-8, Citrulline 657-27-2, L-Lysine hydrochloride 692-04-6, N-ε-Acetyl-L-lysine 1190-94-9 1946-82-3, N-α-Acetyl-L-lysine 3184-13-2, L-Ornithine monohydrochloride 3844-53-9, L-Lysine ethyl ester dihydrochloride 7274-88-6, D-Lysine monohydrochloride 7365-45-9, HEPES 7389-87-9, L-Histidine methyl ester dihydrochloride 20911-93-7 26348-70-9, L-Lysine methyl ester dihydrochloride 36589-29-4, L-Arginine ethyl ester dihydrochloride 46921-20-4, L-Histidine benzyl ester 51127-08-3, L-Lysinamide dihydrochloride

RL: **BAC (Biological activity or effector, except adverse)**; BSU (Biological study, unclassified); BUU (Biological use, unclassified); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses) (polyamines with protonated amino moieties for reducing skin irritation from topical preps.)

IT 124-20-9, Spermidine

RL: **BAC (Biological activity or effector, except adverse)**; BSU (Biological study, unclassified); BUU (Biological use, unclassified); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses) (polyamines with protonated amino moieties for reducing skin irritation from topical preps.)

RN 124-20-9 CAPLUS

CN 1,4-Butanediamine, N-(3-aminopropyl)- (8CI, 9CI) (CA INDEX NAME)

$\text{H}_2\text{N}-(\text{CH}_2)_4-\text{NH}-(\text{CH}_2)_3-\text{NH}_2$

L178 ANSWER 19 OF 33 MEDLINE on STN

ACCESSION NUMBER: 2002640269 MEDLINE

DOCUMENT NUMBER: PubMed ID: 12398516

TITLE: Synthesis and characterization of N(1)-(4-toluenesulfonyl)-N(1)-(9-anthracenemethyl)triamines.

AUTHOR: Wang Chaojie; Abboud Khalil A; Phanstiel IV Otto

CORPORATE SOURCE: Department of Chemistry, University of Florida, Gainesville 32611, USA.

SOURCE: Journal of organic chemistry, (2002 Nov 1) 67 (22) 7865-8. Journal code: 2985193R. ISSN: 0022-3263.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200405

ENTRY DATE: Entered STN: 20021026
Last Updated on STN: 20021211
Entered Medline: 20040512

ABSTRACT:
A modular synthetic approach was developed to access triamines with varying tether lengths from commercially available aminoalkanols. Initial N-alkylation via reductive amination with anthracene-9-carbaldehyde provided the

secondary amines in good yield. Subsequent ditosylation with excess TsCl yielded the respective bis-N,O-tosylates. The tosylates were reacted with excess putrescine to give the final triamines. X-ray crystallography revealed that the polyamine tail is preferentially oriented over the shielding cone of the anthracene ring.

CONTROLLED TERM: *Acridines: CH, chemistry
*Anthracenes: CH, chemistry
Crystallography, X-Ray
Magnetic Resonance Spectroscopy
Models, Molecular
Molecular Conformation
Molecular Structure
Research Support, Non-U.S. Gov't
*Spermidine: CH, chemistry
CAS REGISTRY NO.: 120-12-7 (anthracene); 124-20-9 (Spermidine)
CHEMICAL NAME: 0 (Acridines); 0 (Anthracenes)

L178 ANSWER 20 OF 33 MEDLINE on STN
ACCESSION NUMBER: 97349065 MEDLINE
DOCUMENT NUMBER: PubMed ID: 9205069
TITLE: Ornithine decarboxylase overexpression is a sufficient condition for tumor promotion in mouse skin.
AUTHOR: O'Brien T G; Megosh L C; Gilliard G; Soler A P
CORPORATE SOURCE: The Lankenau Medical Research Center, Wynnewood, Pennsylvania 19096, USA.
CONTRACT NUMBER: ES-01664 (NIEHS)
SOURCE: Cancer research, (1997 Jul 1) 57 (13) 2630-7.
Journal code: 2984705R. ISSN: 0008-5472.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199707
ENTRY DATE: Entered STN: 19970812
Last Updated on STN: 19970812
Entered Medline: 19970725

ABSTRACT:

In multistage tumorigenesis models, ornithine decarboxylase (ODC) is usually dysregulated at some point during tumor promotion, an early stage of carcinogenesis. To address the question whether constitutive overexpression of ODC would be a sufficient condition for tumor promotion, mice with high levels of ODC expression targeted to epidermal keratinocytes were used in skin tumorigenesis experiments. Transgenic mice with ODC targeted to hair follicle keratinocytes were much more sensitive than littermate controls to initiation with a single low dose of carcinogen; in fact, such mice no longer required treatment with tumor promoters for tumors to develop. Targeting ODC overexpression to both interfollicular and follicular keratinocytes did not further enhance tumor yield. Our results suggest that most, if not all, target cells for chemical carcinogens in the skin reside in hair follicles, and ODC overexpression is sufficient to activate such cells to expand clonally to form epidermal tumors.

CONTROLLED TERM: 9,10-Dimethyl-1,2-benzanthracene
Age Factors
Animals
Animals, Newborn
Benzo(a)pyrene
Hair Follicle: ME, metabolism
Hair Follicle: PA, pathology
Immunohistochemistry
Methylnitronitrosoguanidine

Mice
Mice, Inbred C57BL
Mice, Transgenic
*Ornithine Decarboxylase: ME, metabolism
Putrescine: ME, metabolism
Research Support, U.S. Gov't, P.H.S.
Skin: ME, metabolism
Skin: PA, pathology
*Skin Neoplasms: EN, enzymology
Skin Neoplasms: PA, pathology
Spermidine: ME, metabolism
Tetradecanoylphorbol Acetate
Time Factors

CAS REGISTRY NO.: 110-60-1 (Putrescine); 124-20-9 (Spermidine); 16561-29-8 (Tetradecanoylphorbol Acetate); 50-32-8 (Benzo(a)pyrene); 57-97-6 (9,10-Dimethyl-1,2-benzanthracene); 70-25-7 (Methylnitronitrosoguanidine)
CHEMICAL NAME: EC 4.1.1.17 (Ornithine Decarboxylase)

L178 ANSWER 21 OF 33 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN DUPLICATE 1

ACCESSION NUMBER: 2004180937 EMBASE
TITLE: Capillary gas chromatographic determination of spermidine in diet integrators.
AUTHOR: Gambaro V.; Casagni E.; Dell'Acqua L.; Valenti M.; Visconti G.L.
CORPORATE SOURCE: V. Gambaro, Ist. Chim. Farmaceut. Tossicologica, Univ. degli Studi di Milano, Viale Abruzzi 42, 20131 Milan, Italy. veniero.gambaro@unimi.it
SOURCE: Journal of Pharmaceutical and Biomedical Analysis, (16 Apr 2004) Vol. 35, No. 2, pp. 409-413.
Refs: 12
ISSN: 0731-7085 CODEN: JPBADA
PUBLISHER IDENT.: S 0731-7085(03)00554-5
COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Conference Article
FILE SEGMENT: 030 Pharmacology
037 Drug Literature Index
039 Pharmacy
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 20040506
Last Updated on STN: 20040506

ABSTRACT: Biogenic polyamines, among which is spermidine (SPD, NH(2)-(CH(2))(4)-NH-(CH(2))(3)-NH(2)), are ubiquitous polycationic molecules that have a definitive role in many biological processes, such as nucleic acid metabolism, protein synthesis and cell growth. SPD is present in diet integrators because it seems to favour the hair growth. This work describes a capillary gas chromatographic (CGC) method for the quantitative determination of SPD in diet integrators using cadaverine internal standard (IS), a methyl siliconic capillary column and flame-ionization detector (FID). Diet tablets, containing SPD, are pulverized; an aliquot of powder is treated with an alkaline aqueous solution and added with IS. The suspension is extracted with diethyl ether containing ethyl chloroformate (ECF). The ether extracts, evaporated to dryness and reconstituted in ethyl acetate were analyzed in CGC/FID. Derivatives of polyamines with ECF were characterized in CGC/MS too. Validation has considered specificity, linearity, precision and accuracy of analytical method; this parameters are valid for the quantitative determination of SPD in diet integrators. .COPYRG. 2003 Elsevier B.V. All rights reserved.

CONTROLLED TERM: Medical Descriptors:
*capillary gas chromatography
quantitative analysis
device
powder
alkalinity
aqueous solution
suspension
evaporation
validation process
accuracy
analytic method
parameter
tablet
diet
conference paper
priority journal
Drug Descriptors:
*spermidine: AN, drug analysis
silicon
ether
chloroformic acid ethyl ester
acetic acid ethyl ester
polyamine: AN, drug analysis
cadaverine
bioscalin
biogenina

CAS REGISTRY NO.: (spermidine) 124-20-9, 334-50-9;
(silicon) 7440-21-3; (ether) 60-29-7; (chloroformic acid
ethyl ester) 541-41-3; (acetic acid ethyl ester) 141-78-6;
(cadaverine) 1476-39-7, 462-94-2

CHEMICAL NAME: (1) Bioscalin; (2) Biogenina
COMPANY NAME: (2) Giuliani (Italy); Sigma Aldrich (Germany)

L178 ANSWER 22 OF 33 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights
reserved on STN

ACCESSION NUMBER: 2004111966 EMBASE
TITLE: Genetic approaches to the cellular functions of polyamines
in mammals.

AUTHOR: Janne J.; Alhonen L.; Pietila M.; Keinanen T.A.
CORPORATE SOURCE: J. Janne, A.I. Virtanen Inst. for Molec. Sci., University
of Kuopio, PO Box 1627, FIN-70211, Kuopio, Finland.
Juhani.Janne@uku.fi

SOURCE: European Journal of Biochemistry, (2004) Vol. 271, No. 5,
pp. 877-894.
Refs: 167
ISSN: 0014-2956 CODEN: EJBCAI

COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 005 General Pathology and Pathological Anatomy
022 Human Genetics
030 Pharmacology
037 Drug Literature Index

LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 20040412
Last Updated on STN: 20040412

ABSTRACT: The polyamines putrescine, spermidine and spermine are organic
cations shown to participate in a bewildering number of cellular reactions, yet

their exact functions in intermediary metabolism and specific interactions with cellular components remain largely elusive. Pharmacological interventions have demonstrated convincingly that a steady supply of these compounds is a prerequisite for cell proliferation to occur. The last decade has witnessed the appearance of a substantial number of studies, in which genetic engineering of polyamine metabolism in transgenic rodents has been employed to unravel their cellular functions. Transgenic activation of polyamine biosynthesis through an overexpression of their biosynthetic enzymes has assigned specific roles for these compounds in spermatogenesis, skin physiology, promotion of tumorigenesis and organ hypertrophy as well as neuronal protection. Transgenic activation of polyamine catabolism not only profoundly disturbs polyamine homeostasis in most tissues, but also creates a complex phenotype affecting skin, female fertility, fat depots, pancreatic integrity and regenerative growth. Transgenic expression of ornithine decarboxylase antizyme has suggested that this unique protein may act as a general tumor suppressor. Homozygous deficiency of the key biosynthetic enzymes of the polyamines, ornithine and S-adenosylmethionine decarboxylase, as achieved through targeted disruption of their genes, is not compatible with murine embryogenesis. Finally, the first reports of human diseases apparently caused by mutations or rearrangements of the genes involved in polyamine metabolism have appeared.

CONTROLLED TERM: Medical Descriptors:
*cell function
polyamine metabolism
decarboxylation
catalysis
deacetylation
enzyme activity
enzyme substrate
amino acid synthesis
enzyme degradation
enzyme localization
cell proliferation
cell growth
apoptosis
genetic engineering
protein expression
homeostasis
transgene
spermatogenesis
carcinogenesis
skin papilloma: DT, drug therapy
protein function
brain injury
enzyme induction
neuroprotection
brain ischemia
heart ventricle hypertrophy
polyamine synthesis
enzyme inhibition
gene expression
transcription regulation
hair loss: DT, drug therapy
female infertility
pancreas
male infertility: DT, drug therapy
pancreatitis: DT, drug therapy
liver regeneration
nerve cell lesion
neurotoxicity

seizure: DT, drug therapy
 gene disruption
 gene deletion
 gene mutation
 gene targeting
 single nucleotide polymorphism
 human
 nonhuman
 clinical trial
 review
 priority journal
 Drug Descriptors:
 *putrescine
 ***spermidine**
 *spermine
 polyamine
 arginine
 ornithine
 ornithine decarboxylase
 eflornithine: DT, drug therapy
 eflornithine: PD, pharmacology
 n methyl dextro aspartic acid receptor: EC, endogenous compound
 neurotrophin: EC, endogenous compound
 n1 acetylspermidine
 spermidine spermine n1 acetyltransferase
 acyltransferase
 polyamine oxidase
 n1,n11 diethylnorspermine: CT, clinical trial
 n1,n11 diethylnorspermine: PD, pharmacology
 ornithine decarboxylase inhibitor: DT, drug therapy
 ornithine decarboxylase inhibitor: PD, pharmacology
 alpha methylspermidine: DT, drug therapy
 alpha methylspermidine: PD, pharmacology
 spermidine derivative: DT, drug therapy
 spermidine derivative: PD, pharmacology
 gossypol: DT, drug therapy
 gossypol: PD, pharmacology
 n methyl dextro aspartic acid receptor blocking agent: DT, drug therapy
 n methyl dextro aspartic acid receptor blocking agent: PD, pharmacology
 ifenprodil: DT, drug therapy
 ifenprodil: PD, pharmacology
 enzyme antibody
 n benzyl n methyl nitrosamine: PD, pharmacology
 arginase
 adenosylmethionine decarboxylase
 mitoguazone: PD, pharmacology
 spermine synthase
 etoposide: PD, pharmacology
 nonsteroid antiinflammatory agent: PD, pharmacology
 unclassified drug
 CAS REGISTRY NO.: (putrescine) 110-60-1, 333-93-7; (spermidine) 124-20-9, 334-50-9; (spermine) 306-67-2, 71-44-3; (arginine) 1119-34-2, 15595-35-4, 7004-12-8, 74-79-3; (ornithine) 70-26-8, 7006-33-9; (ornithine decarboxylase) 9024-60-6; (eflornithine) 67037-37-0, 70052-12-9; (n1 acetylspermidine) 14278-49-0; (acyltransferase) 9012-30-0, 9054-54-0; (n1,n11

diethylnorspermine) 121749-39-1; (gossypol) 303-45-7;
 (ifenprodil) 23210-56-2; (n benzyl n methylnitrosamine)
 937-40-6; (arginase) 9000-96-8; (adenosylmethionine
 decarboxylase) 9036-20-8; (mitoguazone) 459-86-9; (spermine
 synthase) 74812-43-4; (etoposide) 33419-42-0

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ACCESSION NUMBER: 2001319179 EMBASE

TITLE: **Hair** removal.

AUTHOR: Ramos-e-Silva M.; de Castro M.C.R.; Carneiro L.V.

CORPORATE SOURCE: Dr. M. Ramos-e-Silva, Department of Dermatology,
 Universidade Federal Rio de Janeiro, Rua Sorocaba 465/205,
 22271-110 Rio de Janeiro, Brazil.
 ramos.e.silva@dermato.med.br

SOURCE: Clinics in Dermatology, (2001) Vol. 19, No. 4, pp. 437-444.
 Refs: 41

ISSN: 0738-081X CODEN: CLDEEU

PUBLISHER IDENT.: S 0738-081X(01)00200-0

COUNTRY: United States

DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 013 Dermatology and Venereology

037 Drug Literature Index

LANGUAGE: English

ENTRY DATE: Entered STN: 20011004

Last Updated on STN: 20011004

CONTROLLED TERM: Medical Descriptors:

***hair**
***esthetic surgery**

hair growth

bleaching

hair follicle

electrolysis

laser

light

cream

heating

human

article

priority journal

Drug Descriptors:

***cosmetic**

eflornithine

sodium chloride

cyclosporin

soap

urea

hydrogen sulfide

lanolin

emollient agent

ornithine

spermidine

spermine

bleaching agent

sodium hydroxide

photosensitizing agent

CAS REGISTRY NO.: (eflornithine) 67037-37-0, 70052-12-9; (sodium chloride)
 7647-14-5; (cyclosporin) 79217-60-0; (urea) 57-13-6;
 (hydrogen sulfide) 15035-72-0, 7783-06-4; (lanolin)
 70321-63-0, 8006-54-0, 8020-84-6, 8031-44-5, 8038-28-6;

(ornithine) 70-26-8, 7006-33-9; (spermidine)
124-20-9, 334-50-9; (spermine) 306-67-2,
71-44-3; (sodium hydroxide) 1310-73-2

COMPANY NAME: Bristol Myers Squibb; Gillette

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ACCESSION NUMBER: 87148745 EMBASE

DOCUMENT NUMBER: 1987148745

TITLE: [A new drug in antiparasitic therapy: Alpha-difluoromethylornithine].
UNE MOLECULE NOUVELLE EN THERAPEUTIQUE ANTIPARASITAIRE:
L'ALPHA-DIFLUOROMETHYLORNITHINE.

AUTHOR: Furet Y.; Duong T.H.; Combescot C.; Breteau M.

CORPORATE SOURCE: Service de Pharmacologie, Hopital Bretonneau, 37044 Tours
Cedex, France

SOURCE: Pathologie Biologie, (1987) Vol. 35, No. 4, pp. 398-404.

CODEN: PTBIAN

COUNTRY: France

DOCUMENT TYPE: Journal

FILE SEGMENT: 038 Adverse Reactions Titles

037 Drug Literature Index

004 Microbiology

LANGUAGE: French

SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 911211

Last Updated on STN: 911211

CONTROLLED TERM: Medical Descriptors:

*adverse drug reaction

*african trypanosomiasis

*diarrhea

*drug absorption

*drug efficacy

*drug half life

*gastrointestinal toxicity

***hair loss**

*pharmacokinetics

*drug therapy

*plasmodium

*skin toxicity

*thrombocytopenia

*trypanosoma

pharmacology

polyamine biosynthesis

blood and hemopoietic system

therapy

intoxication

short survey

human

protozoon

Drug Descriptors:

*eflornithine

*antiparasitic agent

enzyme inhibitor

putrescine

spermidine

spermine

CAS REGISTRY NO.: (eflornithine) 67037-37-0, 70052-12-9; (putrescine)

110-60-1, 333-93-7; (spermidine) 124-20-9,

334-50-9; (spermine) 306-67-2, 71-44-3

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ACCESSION NUMBER: 83121101 EMBASE
DOCUMENT NUMBER: 1983121101
TITLE: Affinity of putrescine, spermidine and spermine for pigmented tissues.
AUTHOR: Tjalve H.; Nilsson M.; Henningsson A.C.; Henningsson S.
CORPORATE SOURCE: Dep. Toxicol., Univ. Uppsala, S-751 23 Uppsala, Sweden
SOURCE: Biochemical and Biophysical Research Communications, (1982) Vol. 109, No. 4, pp. 1116-1122.
CODEN: BBRCA
COUNTRY: United States
DOCUMENT TYPE: Journal
FILE SEGMENT: 029 Clinical Biochemistry
LANGUAGE: English
ENTRY DATE: Entered STN: 911209
Last Updated on STN: 911209

ABSTRACT: Determinations of the amounts of putrescine, spermidine and spermine in tissues from mice and cows indicated that the eye melanocytes are very rich in these substances. The concentration of these di-and polyamines was also found to be much higher in pigmented than in albino **hair** of mice. The melanin polymer has the character of a polyanion - explaining the affinity of these cations for pigmented tissues. Further experiments indicated that these substances to a considerable extent may reach the melanin-containing tissue via the circulation.

CONTROLLED TERM: Medical Descriptors:
*melanocyte
*pigmentation
eye
hair
animal cell
nonhuman
cattle
mouse
visual system
Drug Descriptors:
*putrescine
***spermidine**
*spermine
CAS REGISTRY NO.: (putrescine) 110-60-1, 333-93-7; (spermidine) **124-20-9, 334-50-9**; (spermine) 306-67-2, 71-44-3

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ACCESSION NUMBER: 81182147 EMBASE
DOCUMENT NUMBER: 1981182147
TITLE: Changes in epidermal polyamine biosynthesis and specific activity of DNA following a single application of 12-O-tetradecanoyl-phorbol-13-acetate to **hairless** mouse skin.
AUTHOR: Astrup E.G.; Paulsen J.E.
CORPORATE SOURCE: Inst. Pathol., Rikshosp., Nat. Hosp., Univ. Oslo, Norway
SOURCE: Carcinogenesis, (1981) Vol. 2, No. 6, pp. 545-551.
CODEN: CRNGDP
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal
FILE SEGMENT: 037 Drug Literature Index

016 Cancer
 022 Human Genetics
 LANGUAGE: English
 ENTRY DATE: Entered STN: 911209
 Last Updated on STN: 911209
 CONTROLLED TERM: Medical Descriptors:
 *cell cycle
 *dna synthesis
 *epidermis
 *epidermis cell
 adenosylmethionine c 14
 cell culture
 ornithine c 14
 thymidine h 3
 in vitro study
 animal experiment
 heredity
 mouse
 Drug Descriptors:
 *phorbol 13 acetate 12 myristate
 *polyamine
 *putrescine
 *spermidine
 *spermine
 s adenosylmethionine
 radioisotope
 CAS REGISTRY NO.: (phorbol 13 acetate 12 myristate) 16561-29-8; (putrescine)
 110-60-1, 333-93-7; (spermidine) **124-20-9**,
334-50-9; (spermine) 306-67-2, 71-44-3; (s
 adenosylmethionine) 29908-03-0, 485-80-3
 COMPANY NAME: May and baker (Germany); New england nuclear (United
 States); Sigma (United States)

 L178 ANSWER 27 OF 33 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights
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 ACCESSION NUMBER: 80181830 EMBASE
 DOCUMENT NUMBER: 1980181830
 TITLE: Epidermal ornithine decarboxylase, polyamines, cell
 proliferation, and tumor promotion.
 AUTHOR: Lowe N.J.
 CORPORATE SOURCE: Div. Dermatol., Univ. California Sch. Med., Los Angeles,
 Calif. 90024, United States
 SOURCE: Archives of Dermatology, (1980) Vol. 116, No. 7, pp.
 822-825.
 CODEN: ARDEAC
 COUNTRY: United States
 DOCUMENT TYPE: Journal
 FILE SEGMENT: 037 Drug Literature Index
 LANGUAGE: English
 ENTRY DATE: Entered STN: 911209
 Last Updated on STN: 911209
 CONTROLLED TERM: Medical Descriptors:
 *carcinogenesis
 *cell proliferation
 *hair
 *skin
 *skin carcinogenesis
 short survey
 Drug Descriptors:
 *cadaverine

*diflorasone diacetate
*fluclorolone acetonide
*fluocinolone acetonide
*ornithine decarboxylase
*phorbol 13 acetate 12 myristate
*putrescine

***spermidine**

*spermine
azacitidine
cycloheximide

CAS REGISTRY NO.: (cadaverine) 1476-39-7, 462-94-2; (diflorasone diacetate) 33564-31-7; (fluclorolone acetonide) 3693-39-8; (fluocinolone acetonide) 67-73-2; (ornithine decarboxylase) 9024-60-6; (phorbol 13 acetate 12 myristate) 16561-29-8; (putrescine) 110-60-1, 333-93-7; (spermidine) **124-20-9, 334-50-9**; (spermine) 306-67-2, 71-44-3; (azacitidine) 320-67-2, 52934-49-3; (cycloheximide) 642-81-9, 66-81-9

CHEMICAL NAME: Florone

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ACCESSION NUMBER: 80134690 EMBASE

DOCUMENT NUMBER: 1980134690

TITLE: Polyamine metabolism in Menkes kinky **hair** disease.

AUTHOR: Rennert O.M.; Chan W.Y.; Hidalgo H.; et al.

CORPORATE SOURCE: Div. Genet., Dept. Ped., Univ. Oklahoma Hlth Sci. Cent., Oklahoma City, Okla. 73190, United States

SOURCE: Clinica Chimica Acta, (1980) Vol. 103, No. 3, pp. 375-380.
CODEN: CCATAR

COUNTRY: Netherlands

DOCUMENT TYPE: Journal

FILE SEGMENT: 029 Clinical Biochemistry
022 Human Genetics
007 Pediatrics and Pediatric Surgery

LANGUAGE: English

ENTRY DATE: Entered STN: 911209

Last Updated on STN: 911209

ABSTRACT: Clinical investigations of the urinary excretion of putrescine and the polyamines spermidine and spermine in a patient with Menkes kinky *****hair***** disease are reported. This disorder, characterized by intra- and extracellular copper deficiency, is associated with significant depression of diamine oxidase and monoamine oxidase activity. Urinary excretion of diamine and polyamines, monitored over a 2-month interval in a 4-month old patient with Menkes kinky **hair** disease, documented a 3- to 10-fold increase in the excretion of free putrescine, spermidine and spermine as well as the conjugated derivatives of putrescine and spermidine. These observations suggest that abnormalities in diamine and polyamine concentration occur in disease states in which the metabolic transformation of these compounds is impaired.

CONTROLLED TERM: Medical Descriptors:

*copper deficiency

***kinky hair**

*menkes syndrome

putrescine

urine

newborn

human cell

Drug Descriptors:

*polyamine
 spermidine
spermine

CAS REGISTRY NO.: (spermidine) 124-20-9, 334-50-9;
 (spermine) 306-67-2, 71-44-3

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ACCESSION NUMBER: 80187107 EMBASE

DOCUMENT NUMBER: 1980187107

TITLE: Topical spermine and putrescine stimulated DNA synthesis in the **hairless** mouse epidermis.

AUTHOR: Gange R.W.; Dequoy P.R.

CORPORATE SOURCE: Div. Dermatol., Univ. California, San Diego Sch. Med., San Diego, Calif., United States

SOURCE: British Journal of Dermatology, (1980) Vol. 103, No. 1, pp. 27-32.

CODEN: BJDEAZ

COUNTRY: United Kingdom

DOCUMENT TYPE: Journal

FILE SEGMENT: 037 Drug Literature Index
 013 Dermatology and Venereology
 030 Pharmacology

LANGUAGE: English

ENTRY DATE: Entered STN: 911209

Last Updated on STN: 911209

ABSTRACT: Polyamines were applied topically to the skin of the ***hairless*** mouse. Putrescine stimulated the incorporation of thymidine after a 24-h application period. The effect of polyamines upon skin pretreated with a potent topical steroid was also examined; in this model thymidine incorporation was stimulated by both spermine and putrescine. Pretreatment was performed in order to reduce endogenous polyamine biosynthesis and increase the sensitivity of the epidermis to exogenous polyamines. Depletion of the activity of ornithine decarboxylase, the rate-limiting polyamine biosynthetic enzyme, by topical steroids was confirmed in the **hairless** mouse following induction of the enzyme by UV-B. The results are consistent with those in vitro studies suggesting a role for polyamines in the control of DNA synthesis; the effect of corticosteroids upon proliferative skin disorders may be mediated through this mechanism.

CONTROLLED TERM: Medical Descriptors:
 *dna synthesis
 *epidermis
 nude mouse
 in vitro study
 animal experiment
 mouse
 topical drug administration
 Drug Descriptors:
 *betamethasone valerate
 *putrescine
 ***spermidine**
 *spermine
 polyamine

CAS REGISTRY NO.: (betamethasone valerate) 2152-44-5, 57654-97-4;
 (putrescine) 110-60-1, 333-93-7; (spermidine)
 124-20-9, 334-50-9; (spermine) 306-67-2,
 71-44-3

CHEMICAL NAME: Valisone

COMPANY NAME: Sigma

L178 ANSWER 30 OF 33 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on
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ACCESSION NUMBER: 2005:200554 BIOSIS

DOCUMENT NUMBER: PREV200500203420

TITLE: Disturbed keratinocyte differentiation in transgenic mice
and organotypic keratinocyte cultures as a result of
spermidine/spermine N1-acetyltransferase
overexpression.

AUTHOR(S): Pietila, Marko [Reprint Author]; Pirinen, Eija; Keskitalo,
Salla; Juutinen, Sisko; Pasonen-Seppanen, Sanna; Keinanen,
Tuomo; Alhonen, Leena; Janne, Juhani

CORPORATE SOURCE: AI Virtanen Inst Mol Sci, Univ Kuopio, POB 1627, FI-70211,
Kuopio, Finland
mpietila@messi.uku.fi

SOURCE: Journal of Investigative Dermatology, (March 2005) Vol.
124, No. 3, pp. 596-601. print.
ISSN: 0022-202X (ISSN print).

DOCUMENT TYPE: Article

LANGUAGE: English

ENTRY DATE: Entered STN: 1 Jun 2005

Last Updated on STN: 1 Jun 2005

ABSTRACT:Overexpression of the rate-limiting enzyme in polyamine catabolism
spermidine /spermine N1-acetyltransferase (SSAT) in transgenic (Tg)
mouse leads to accumulation of putrescine in the skin and permanent
hair loss at the age of 3 wk. The **hair** follicles
of these mice are replaced by dermal cysts and epidermal utriculi. Increased
putrescine production is also seen in hyperproliferative cutaneous disorders
such as in psoriasis. These disorders are characterized by delayed onset of
epidermal differentiation characterized as reduced expression of terminal
differentiation markers such as cytokeratins 1/10, and filaggrin and persisting
expression of basal cell cytokeratins 5/14 in the suprabasal layers. The use
of these markers in immunohistological analysis of SSAT Tg skin clearly showed
signs of disturbed differentiation. To exclude the possibility that changes in
differentiation originated from underlying connective tissue, we introduced
SSAT gene into an established rat epidermal cell line. Organotypic cultures
derived from the transfected cells displayed similar changes in their
differentiation pattern as keratinocytes in Tg skin. The role of accumulated
putrescine in cutaneous changes of SSAT Tg mice was verified by an experiment
in which putrescine level was reduced by systemic putrescine biosynthesis
inhibition. The putrescine reduction was sufficient to alleviate the cutaneous
changes to such an extent that distinct **hair** regrowth could be seen.
These results suggest that the cutaneous changes of SSAT Tg animals are due to
disorders of the keratinocyte differentiation. Moreover, they strengthen the
view that the proper regulation of polyamine metabolism plays an important role
in the keratinocyte maturation.

CONCEPT CODE: Cytology - Animal 02506
Genetics - General 03502
Genetics - Animal 03506
Biochemistry studies - General 10060
Pathology - General 12502
Metabolism - General metabolism and metabolic pathways
13002
Integumentary system - Physiology and biochemistry 18504
Integumentary system - Pathology 18506

INDEX TERMS: Major Concepts
Integumentary System (Chemical Coordination and
Homeostasis); Metabolism; Molecular Genetics
(Biochemistry and Molecular Biophysics)

INDEX TERMS: Parts, Structures, & Systems of Organisms

connective tissue; **hair**: integumentary system;
keratinocyte: integumentary system; skin: integumentary system

INDEX TERMS: Diseases
psoriasis: integumentary system disease, pathology, symptom
Psoriasis (MeSH)

INDEX TERMS: Chemicals & Biochemicals
cytokeratin 1: expression; cytokeratin 10: expression; cytokeratin 14: expression; cytokeratin 5: expression; filaggrin: expression; polyamines; putrescine: inhibition, synthesis; **spermidine**/spermine
N-1-acetyltransferase: expression

INDEX TERMS: Methods & Equipment
immunohistology: immunologic techniques, laboratory techniques

ORGANISM: Classifier
Muridae 86375
Super Taxa
Rodentia; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
REK cell line (cell line)
mouse (common): transgenic
Taxa Notes
Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates

REGISTRY NUMBER: 110-60-1 (putrescine)
83268-44-4 (**spermidine**/spermine
N-1-acetyltransferase)

GENE NAME: mouse SSAT gene (Muridae): expression

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ACCESSION NUMBER: 2001:462552 BIOSIS
DOCUMENT NUMBER: PREV200100462552
TITLE: Concurrent overexpression of ornithine decarboxylase and **spermidine**/spermine N1-acetyltransferase further accelerates the catabolism of hepatic polyamines in transgenic mice.

AUTHOR(S): Suppola, Suvikki; Heikkinen, Sami; Parkkinen, Jyrki J.; Uusi-Oukari, Mikko; Korhonen, Veli-Pekka; Keinanen, Tuomo; Alhonen, Leena; Janne, Juhani [Reprint author]

CORPORATE SOURCE: A.I. Virtanen Institute for Molecular Sciences, University of Kuopio, FIN-70211, Kuopio, Finland
Juhani.Janne@uku.fi

SOURCE: Biochemical Journal, (1 September, 2001) Vol. 358, No. 2, pp. 343-348. print.
ISSN: 0264-6021.

DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 3 Oct 2001
Last Updated on STN: 22 Feb 2002

ABSTRACT: We have generated a hybrid transgenic mouse line overexpressing both ornithine decarboxylase (ODC) and **spermidine**/spermine N1-acetyltransferase (SSAT) under the control of the mouse metallothionein (MT) I promoter. In comparison with singly transgenic animals overexpressing SSAT, the doubly transgenic mice unexpectedly displayed much more striking signs of activated polyamine catabolism, as exemplified by a massive putrescine accumulation and an extreme reduction of hepatic **spermidine** and spermine pools. Interestingly, the profound depletion of the higher polyamines

in the hybrid animals occurred in the presence of strikingly high ODC activity and tremendous putrescine accumulation. Polyamine catabolism in the doubly transgenic mice could be enhanced further by administration of zinc or the polyamine analogue N1,N11-diethylnorspermine. In tracer experiments with (14C) *****spermidine***** we found that, in comparison with syngenic animals, both MT-ODC and MT-SSAT mice possessed an enhanced efflux mechanism for hepatic *****spermidine*****. In the MT-ODC animals this mechanism apparently operated in the absence of measurable SSAT activity. In the hybrid animals, *****spermidine***** efflux was stimulated further in comparison with the singly transgenic animals. In spite of a dramatic accumulation of putrescine and a profound reduction of the **spermidine** and spermine pools, only marginal changes were seen in the level of ODC antizyme. Even though the hybrid animals showed no liver or other organ-specific overt toxicity, except an early and permanent **loss of hair**, their life span was greatly reduced. These results can be understood from the perspective that catabolism is the overriding regulatory mechanism in the metabolism of the polyamines and that, even under conditions of severe depletion of *****spermidine***** and spermine, extremely high tissue pools of putrescine are not driven further to replenish the pools of the higher polyamines.

CONCEPT CODE: Genetics - General 03502
 Genetics - Animal 03506
 Biochemistry studies - General 10060
 Enzymes - General and comparative studies: coenzymes 10802
 Metabolism - General metabolism and metabolic pathways 13002
 Digestive system - Physiology and biochemistry 14004

INDEX TERMS: Major Concepts
 Digestive System (Ingestion and Assimilation);
 Enzymology (Biochemistry and Molecular Biophysics);
 Metabolism; Molecular Genetics (Biochemistry and Molecular Biophysics)

INDEX TERMS: Parts, Structures, & Systems of Organisms
 liver: digestive system

INDEX TERMS: Chemicals & Biochemicals
 N-1,N-11-diethylnorspermine: polyamine analogue; hepatic polyamines: catabolism; ornithine decarboxylase: overexpression; putrescine: accumulation; **spermidine**; **spermidine/spermine**
 N-1-acetyltransferase [SSAT]: overexpression; spermine

INDEX TERMS: Methods & Equipment
 hybrid animal generation: genetic method

ORGANISM: Classifier
 Muridae 86375
 Super Taxa
 Rodentia; Mammalia; Vertebrata; Chordata; Animalia
 Organism Name
 mouse: hybrid
 Taxa Notes
 Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates

REGISTRY NUMBER: 9024-60-6 (ornithine decarboxylase)
 110-60-1 (putrescine)
124-20-9 (spermidine)
 71-44-3 (spermine)

GENE NAME: mouse metallothionein I promoter gene (Muridae)

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ACCESSION NUMBER: 1999:204432 BIOSIS

DOCUMENT NUMBER: PREV199900204432
 TITLE: Effects of jasmonic acid, silver nitrate and L-AOPP on the distribution of free and conjugated polyamines in roots and shoots of *Solanum tuberosum* in vitro.
 AUTHOR(S): Mader, Johanna C. [Reprint author]
 CORPORATE SOURCE: Department of Plant Sciences, University of Cambridge, Downing St., CB2 3EA, Cambridge, UK
 SOURCE: Journal of Plant Physiology, (Jan., 1999) Vol. 154, No. 1, pp. 79-88. print.
 CODEN: JPPHEY. ISSN: 0176-1617.
 DOCUMENT TYPE: Article
 LANGUAGE: English
 ENTRY DATE: Entered STN: 26 May 1999
 Last Updated on STN: 26 May 1999

ABSTRACT: Effects of jasmonic acid on the levels of free and conjugated polyamines (PAs) were investigated in *Solanum tuberosum* in vitro. To test for involvement of ethylene and phenolic acids, inhibitors were used: silver ions to block ethylene action and L-alpha-aminooxy-beta-phenylpropionic acid (AOPP) to inhibit the phenylpropanoid pathway. Effects on root and shoot anatomy were examined by light microscopy. The silver treatment inhibited tuberization, increased leaf size, elongation and greening of roots and reduced shoot height and **hairiness** of shoots and roots. Except for tuberization, jasmonic acid induced morphological changes opposite to that of inhibition of ethylene action. Jasmonic acid-induced shoot and root thickening was due to increased cell division. AOPP promoted shoot and root **growth** and reduced root *****hair***** formation and tuberization. In roots, the profile of free PAs in controls was putrescine (PUT) > **spermidine** (SPD) > spermine (SPM). PUT accounted for about 90% of conjugated PAs. Jasmonic acid, alone and with the inhibitors, greatly increased conjugated SPD and SPM relative to conjugated PUT: conjugated SPD+SPM rose from about 10% up to 50-80%. Silver and/or AOPP had small effects on the relative proportions of conjugated PAs. The relative abundance of free PAs in roots was not influenced fundamentally by jasmonic acid, silver, AOPP or any combination of these. In contrast to roots, SPD dominated the free and SPM the conjugated PAs in shoots. Nevertheless, effects of jasmonic acid and AOPP on conjugated PAs (increase and decrease, respectively, in particular of SPD and SPM) were similar to those in roots. However, silver caused a contrasting response: levels of free PUT increased to make it most abundant. Conjugated SPD and SPM increased by up to 10-fold. As AOPP partly counteracted this effect, conjugation is apparently dependent on newly synthesized phenolic acids. The results provide a strong indication that both ethylene and PAL are involved in the effect of jasmonic acid on PA levels in plant tissues. Differential effects of jasmonic acid treatment on individual PAs suggest that additional modes of action also participate.

CONCEPT CODE: Plant physiology - Growth substances 51514
 Cytology - Plant 02504
 Plant physiology - Chemical constituents 51522
 Biochemistry studies - General 10060
 General biology - Miscellaneous 00532

INDEX TERMS: Major Concepts
 Biochemistry and Molecular Biophysics; Chemical Coordination and Homeostasis

INDEX TERMS: Parts, Structures, & Systems of Organisms
 root; shoot

INDEX TERMS: Chemicals & Biochemicals
 ethylene: plant **growth** regulator; jasmonic acid: plant **growth** regulator; polyamines: conjugated form, distribution, free form; silver nitrate: plant **growth** regulator; L-AOPP [L-alpha-amino-oxy-beta-phenylpropionic acid]: plant **growth** regulator

INDEX TERMS: Miscellaneous Descriptors
 tuberization
ORGANISM: Classifier
 Solanaceae 26775
 Super Taxa
 Dicotyledones; Angiospermae; Spermatophyta; Plantae
 Organism Name
 Solanum tuberosum: in vitro
 Taxa Notes
 Angiosperms, Dicots, Plants, Spermatophytes, Vascular
 Plants
REGISTRY NUMBER: 74-85-1 (ethylene)
 6894-38-8 (jasmonic acid)
 7761-88-8 (silver nitrate)
 42990-62-5 (L-ALPHA-AMINO-OXY-BETA-PHENYLPROPIONIC ACID)

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ACCESSION NUMBER: 1994:279309 BIOSIS
DOCUMENT NUMBER: PREV199497292309
TITLE: Chronic toxicity studies of the potential cancer preventive
2-(difluoromethyl)-dl-ornithine.
AUTHOR(S): Crowell, James A. [Reprint author]; Goldenthal, Edwin I.;
Kelloff, Gary J.; Malone, Winfred F.; Boone, Charles W.
CORPORATE SOURCE: NIH/NCI/DCPC, Build. EPN, Suite 201, Bethesda, MD 20892,
USA
SOURCE: Fundamental and Applied Toxicology, (1994) Vol. 22, No. 3,
pp. 341-354.
CODEN: FAATDF. ISSN: 0272-0590.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 24 Jun 1994
Last Updated on STN: 25 Jun 1994

ABSTRACT: The synthetic compound 2-(difluoromethyl)-dl-ornithine irreversibly inhibits ornithine decarboxylase and reduces the intracellular levels of the polyamine cell cycle factors putrescine and **spermidine**. The drug has shown chemopreventive efficacy in numerous laboratory epithelial cancer models and is a prototype for antiproliferative agents. Chronic toxicity studies in rats and dogs were performed to characterize the toxicities of the compound at high dosages and to support its further development in clinical trials as a potential chemopreventive agent. Chronic administration (52 weeks) by gavage to Charles River CD rats at dosages of 400, 800, and 1600 mg/kg produced weight *****loss*****, increased platelets, **alopecia** and skin abrasions, dermatitis, liver necrosis, and gastric inflammation. The no-effect dose in this study was considered 400 mg/kg. Chronic administration by capsule to dogs at dosages of 50, 100, and 200 mg/kg produced conjunctivitis, hyperkeratosis and **alopecia**, and cystic intestinal crypts. A no-effect dose was not determined in this study. The toxicities demonstrated in these studies may be minimized at lower dosages and support the further development of this compound in chemopreventive clinical investigations.

CONCEPT CODE: Cytology - Animal 02506
Biochemistry studies - General 10060
Biochemistry studies - Proteins, peptides and amino acids 10064
Enzymes - Physiological studies 10808
Physiology - General 12002
Pathology - Inflammation and inflammatory disease 12508
Metabolism - Minerals 13010
Digestive system - Pathology 14006
Blood - Blood and lymph studies 15002

Blood - Blood cell studies 15004
Integumentary system - Pathology 18506
Sense organs - Pathology 20006
Pharmacology - General 22002
Toxicology - Pharmacology 22504
Neoplasms - Pathology, clinical aspects and systemic effects 24004
Neoplasms - Therapeutic agents and therapy 24008

INDEX TERMS:

Major Concepts
Blood and Lymphatics (Transport and Circulation); Cell Biology; Digestive System (Ingestion and Assimilation); Enzymology (Biochemistry and Molecular Biophysics); Integumentary System (Chemical Coordination and Homeostasis); Metabolism; Pathology; Pharmacology; Physiology; Sense Organs (Sensory Reception); Toxicology; Tumor Biology

INDEX TERMS:

Chemicals & Biochemicals
PUTRESCINE; **SPERMIDINE**; ORNITHINE
DECARBOXYLASE

INDEX TERMS:

Miscellaneous Descriptors
ALOPECIA; ANTINEOPLASTIC-DRUG; CONJUNCTIVITIS; DERMATITIS; GASTRIC INFLAMMATION; HYPERKERATOSIS; INCREASED PLATELET; LIVER NECROSIS; ORNITHINE
DECARBOXYLASE; PUTRESCINE; SKIN ABRASION;
SPERMIDINE; WEIGHT LOSS;
2-(DIFLUOROMETHYL)-DL-ORNITHINE

ORGANISM:

Classifier
Canidae 85765
Super Taxa
Carnivora; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
dog
Taxa Notes
Animals, Carnivores, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Vertebrates

ORGANISM:

Classifier
Muridae 86375
Super Taxa
Rodentia; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
rat
Taxa Notes
Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates

REGISTRY NUMBER:

110-60-1 (PUTRESCINE)
124-20-9 (SPERMIDINE)
9024-60-6 (ORNITHINE DECARBOXYLASE)

=> ☐

=> ☐

=> file caplus

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TEXT SEARCH; PART 2 of 3

(part 2 of 3)

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'OBI' IS DEFAULT SEARCH FIELD FOR 'CAPLUS' FILE

=> d que nos L46

```
L2          STR
L3          118 SEA FILE=REGISTRY FAM FUL L2
L7          9495 SEA FILE=CAPLUS ABB=ON  PLU=ON  L3
L45         862 SEA FILE=CAPLUS ABB=ON  PLU=ON  ?TELOGEN?/BI
L46         2 SEA FILE=CAPLUS ABB=ON  PLU=ON  L7 AND L45
```

=> d que nos L48

```
L45         862 SEA FILE=CAPLUS ABB=ON  PLU=ON  ?TELOGEN?/BI
L47         7869 SEA FILE=CAPLUS ABB=ON  PLU=ON  SPERMID?/OBI
L48         2 SEA FILE=CAPLUS ABB=ON  PLU=ON  L45 AND L47
```

=> d que nos L52

```
L2          STR
L3          118 SEA FILE=REGISTRY FAM FUL L2
L6          52893 SEA FILE=CAPLUS ABB=ON  PLU=ON  HAIR?/OBI
L7          9495 SEA FILE=CAPLUS ABB=ON  PLU=ON  L3
L9          695470 SEA FILE=CAPLUS ABB=ON  PLU=ON  GROW?/OBI
L49         679908 SEA FILE=CAPLUS ABB=ON  PLU=ON  PHASE?/OBI
L50         27194 SEA FILE=CAPLUS ABB=ON  PLU=ON  L9 (S) L49
L51         33 SEA FILE=CAPLUS ABB=ON  PLU=ON  L7 AND L50
L52         0 SEA FILE=CAPLUS ABB=ON  PLU=ON  L51 AND L6
```

=> d que nos L54

```
L2          STR
L3          118 SEA FILE=REGISTRY FAM FUL L2
L7          9495 SEA FILE=CAPLUS ABB=ON  PLU=ON  L3
L9          695470 SEA FILE=CAPLUS ABB=ON  PLU=ON  GROW?/OBI
L12         3134 SEA FILE=CAPLUS ABB=ON  PLU=ON  ALOPECIA?/OBI
L13         4570 SEA FILE=CAPLUS ABB=ON  PLU=ON  ?ALOPECIA?/BI
L49         679908 SEA FILE=CAPLUS ABB=ON  PLU=ON  PHASE?/OBI
L50         27194 SEA FILE=CAPLUS ABB=ON  PLU=ON  L9 (S) L49
L51         33 SEA FILE=CAPLUS ABB=ON  PLU=ON  L7 AND L50
L54         0 SEA FILE=CAPLUS ABB=ON  PLU=ON  L51 AND ((L12 OR L13))
```

=> s (L46 or L48 or L52 or L54) not L168

L179 1 (L46 OR L48 OR L52 OR L54) NOT L168

*printed with
author
search*

=> file medline

FILE 'MEDLINE' ENTERED AT 16:07:58 ON 11 JAN 2006

FILE LAST UPDATED: 10 JAN 2006 (20060110/UP). FILE COVERS 1950 TO DATE.

On December 11, 2005, the 2006 MeSH terms were loaded.

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See also:

<http://www.nlm.nih.gov/mesh/>
http://www.nlm.nih.gov/pubs/techbull/nd04/nd04_mesh.html
http://www.nlm.nih.gov/pubs/techbull/nd05/nd05_med_data_changes.html
http://www.nlm.nih.gov/pubs/techbull/nd05/nd05_2006_MeSH.html

OLDMEDLINE is covered back to 1950.

MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the MeSH 2006 vocabulary.

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=> d que nos L82

L2	STR
L3	118 SEA FILE=REGISTRY FAM FUL L2
L66	3863 SEA FILE=MEDLINE ABB=ON PLU=ON L3
L70	3863 SEA FILE=MEDLINE ABB=ON PLU=ON SPERMIDINE/CT
L81	584 SEA FILE=MEDLINE ABB=ON PLU=ON ?TELOGEN?
L82	0 SEA FILE=MEDLINE ABB=ON PLU=ON L81 AND (L70 OR L66)

=> s L82 not L169

L180 0 L82 NOT L169

=> file embase

FILE 'EMBASE' ENTERED AT 16:08:00 ON 11 JAN 2006

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FILE COVERS 1974 TO 6 Jan 2006 (20060106/ED)

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=> d que nos L130

L112	4310 SEA FILE=EMBASE ABB=ON PLU=ON SPERMIDINE/CT
L129	560 SEA FILE=EMBASE ABB=ON PLU=ON ?TELOGEN?

L130 0 SEA FILE=EMBASE ABB=ON PLU=ON L129 AND L112

=> d que nos L133

L2 STR
L3 118 SEA FILE=REGISTRY FAM FUL L2
L129 560 SEA FILE=EMBASE ABB=ON PLU=ON ?TELOGEN?
L131 SEL PLU=ON L3 1- CHEM : 153 TERMS
L132 6199 SEA FILE=EMBASE ABB=ON PLU=ON L131
L133 0 SEA FILE=EMBASE ABB=ON PLU=ON L129 AND L132

=> s (L130 or L133) not L170

L181 0 (L130 OR L133) NOT L170

=> file biosis

FILE 'BIOSIS' ENTERED AT 16:08:04 ON 11 JAN 2006
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CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT
FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 4 January 2006 (20060104/ED)

=> d que nos L166

L2 STR
L3 118 SEA FILE=REGISTRY FAM FUL L2
L146 6700 SEA FILE=BIOSIS ABB=ON PLU=ON L3
L147 SEL PLU=ON L3 1- CHEM : 153 TERMS
L148 9531 SEA FILE=BIOSIS ABB=ON PLU=ON L147
L152 9531 SEA FILE=BIOSIS ABB=ON PLU=ON L146 OR L148
L165 530 SEA FILE=BIOSIS ABB=ON PLU=ON ?TELOGEN?
L166 0 SEA FILE=BIOSIS ABB=ON PLU=ON L152 AND L165

=> s L166 not L171

L182 0 L166 NOT L171

=> => d ibib abs hitind hitstr L179 1

YOU HAVE REQUESTED DATA FROM FILE 'CAPLUS' - CONTINUE? (Y)/N:y

L179 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:1001904 CAPLUS
DOCUMENT NUMBER: 143:292553
TITLE: Composition for regulating the trophism of hair
 follicles and the cutaneous production of sebum and
 use thereof in androgenetic alopecia
INVENTOR(S): Giuliani, Giammaria; Benedusi, Anna; Bellinvia,
 Salvatore; Rinaldi, Fabio
PATENT ASSIGNEE(S): Giuliani S.P.A., Italy
SOURCE: PCT Int. Appl., 49 pp.

CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005084621	A1	20050915	WO 2005-IB544	20050301
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.: IT 2004-MI386 A 20040302
 IT 2004-MI388 A 20040302

AB The present invention relates to a composition for regulating the trophism of hair follicles and the cutaneous production of sebum and its use in androgenetic alopecia, comprising the synergic association of an extract from *Boehmeria nipoonivea* which inhibits the 5 α -reductase with a compound active at the keratin epithelial structure level, selected from specific sulfur-donor compds. and antioxidants. The composition of the invention is suitable for topical and/or oral administration. For example, *Boehmeria* extract showed an inhibiting capacity of 5 α -reductase quant. comparable to that of finasteride, but lasting longer. Dietary supplement in tablet form suitable for the prevention of androgenetic alopecia in males and females contained spermidine trihydrochloride 0.50 mg, calcium pantothenate 9 mg, d-biotin 0.150 mg, B. *nipoonivea* extract 150 mg, quercetin 0.90 mg, taurine 100 mg, zinc amino acid chelate 7.5 mg, copper amino acid chelate 1.20 mg, folic acid 0.30 mg, microcryst. cellulose 90.0 mg, calcium phosphate dibasic dihydrate 80.0 mg, hydroxypropyl Me cellulose 52.5 mg, magnesium stearate 7.90 mg, and silicon dioxide 1.70 mg.

IC ICM A61K007-06

ICS A23L001-30; A61K031-00

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 1, 62

IT Alopecia

(**telogenic** effluvium; oral and topical compns. comprising *Boehmeria nipoonivea* extract and sulfur donor compound for treatment of androgenetic alopecia by regulating trophism of hair follicles and cutaneous production of sebum)

IT 52-90-4D, L-Cysteine, sulfurated 56-89-3D, L-Cystine, sulfurated 58-85-5 59-30-3, Folic acid, biological studies 63-68-3, L-Methionine, biological studies 63-68-3D, L-Methionine, sulfurated 67-71-0, Methylsulfonylmethane 107-35-7, Taurine 137-08-6, Calcium pantothenate 303-98-0, Ubidecarenone **334-50-9, Spermidine** trihydrochloride 501-36-0, Resveratrol 7235-40-7, β -Carotene 7439-96-5D, Manganese, amino acid chelate 7440-50-8D, Copper, amino acid chelate 7440-66-6D, Zinc, amino acid chelate 8059-24-3, Vitamin B6 153302-05-7, Pronalen

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(oral and topical compns. comprising *Boehmeria nipoonivea* extract and sulfur donor compound for treatment of androgenetic alopecia by

regulating trophism of hair follicles and cutaneous production of sebum)
IT 334-50-9, **Spermidine** trihydrochloride
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(oral and topical compns. comprising Boehmeria nipoonivea extract and
sulfur donor compound for treatment of androgenetic alopecia by
regulating trophism of hair follicles and cutaneous production of sebum)
RN 334-50-9 CAPLUS
CN 1,4-Butanediamine, N-(3-aminopropyl)-, trihydrochloride (8CI, 9CI) (CA
INDEX NAME)

$\text{H}_2\text{N}-(\text{CH}_2)_4-\text{NH}-(\text{CH}_2)_3-\text{NH}_2$

● 3 HCl

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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=> □

=> file caplus

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=> d que nos L59

L2 STR

L3 118 SEA FILE=REGISTRY FAM FUL L2

L5 10 SEA FILE=REGISTRY ABB=ON PLU=ON (124-20-9/BI OR 137-08-6/BI
OR 1406-18-4/BI OR 50-81-7/BI OR 58-85-5/BI OR 59-30-3/BI OR
63-68-3/BI OR 7440-50-8/BI OR 7440-66-6/BI OR 8059-24-3/BI)

L7 9495 SEA FILE=CAPLUS ABB=ON PLU=ON L3


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L12      3134 SEA FILE=CAPLUS ABB=ON PLU=ON ALOPECIA?/OBI
L13      4570 SEA FILE=CAPLUS ABB=ON PLU=ON ?ALOPECIA?/BI
L56       9 SEA FILE=REGISTRY ABB=ON PLU=ON L5 NOT L3
L57     799849 SEA FILE=CAPLUS ABB=ON PLU=ON L56
L58      381 SEA FILE=CAPLUS ABB=ON PLU=ON L7 AND L57
L59       3 SEA FILE=CAPLUS ABB=ON PLU=ON L58 AND (L12 OR L13)

```

=> d que nos L61

```

L2        STR
L3       118 SEA FILE=REGISTRY FAM FUL L2
L5       10 SEA FILE=REGISTRY ABB=ON PLU=ON (124-20-9/BI OR 137-08-6/BI
        OR 1406-18-4/BI OR 50-81-7/BI OR 58-85-5/BI OR 59-30-3/BI OR
        63-68-3/BI OR 7440-50-8/BI OR 7440-66-6/BI OR 8059-24-3/BI)
L6     52893 SEA FILE=CAPLUS ABB=ON PLU=ON HAIR?/OBI
L7     9495 SEA FILE=CAPLUS ABB=ON PLU=ON L3
L20    1292 SEA FILE=CAPLUS ABB=ON PLU=ON HAIRY ROOT?/OBI
L56     9 SEA FILE=REGISTRY ABB=ON PLU=ON L5 NOT L3
L57    799849 SEA FILE=CAPLUS ABB=ON PLU=ON L56
L58    381 SEA FILE=CAPLUS ABB=ON PLU=ON L7 AND L57
L60   51601 SEA FILE=CAPLUS ABB=ON PLU=ON L6 NOT L20
L61     8 SEA FILE=CAPLUS ABB=ON PLU=ON L58 AND L60

```

=> s (L59 or L61) not L168

L183 8 (L59 OR L61) NOT L168

printed with author search

=> file medline

FILE 'MEDLINE'. ENTERED AT 16:19:43 ON 11 JAN 2006

FILE LAST UPDATED: 10 JAN 2006 (20060110/UP). FILE COVERS 1950 TO DATE.

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<http://www.nlm.nih.gov/mesh/>
http://www.nlm.nih.gov/pubs/techbull/nd04/nd04_mesh.html
http://www.nlm.nih.gov/pubs/techbull/nd05/nd05_med_data_changes.html
http://www.nlm.nih.gov/pubs/techbull/nd05/nd05_2006_MeSH.html

OLDMEDLINE is covered back to 1950.

MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the MeSH 2006 vocabulary.

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=> d que nos L90

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L2        STR
L3       118 SEA FILE=REGISTRY FAM FUL L2
L5       10 SEA FILE=REGISTRY ABB=ON PLU=ON (124-20-9/BI OR 137-08-6/BI
        OR 1406-18-4/BI OR 50-81-7/BI OR 58-85-5/BI OR 59-30-3/BI OR
        63-68-3/BI OR 7440-50-8/BI OR 7440-66-6/BI OR 8059-24-3/BI)

```

```
L56          9 SEA FILE=REGISTRY ABB=ON  PLU=ON  L5 NOT L3
L66          3863 SEA FILE=MEDLINE ABB=ON  PLU=ON  L3
L77          7091 SEA FILE=MEDLINE ABB=ON  PLU=ON  ALOPECIA+NT/CT
L88          143990 SEA FILE=MEDLINE ABB=ON  PLU=ON  L56
L90          0 SEA FILE=MEDLINE ABB=ON  PLU=ON  L66 AND L88 AND L77
```

=> d que nos L91

```
L2          STR
L3          118 SEA FILE=REGISTRY FAM FUL L2
L5          10 SEA FILE=REGISTRY ABB=ON  PLU=ON  (124-20-9/BI OR 137-08-6/BI
OR 1406-18-4/BI OR 50-81-7/BI OR 58-85-5/BI OR 59-30-3/BI OR
63-68-3/BI OR 7440-50-8/BI OR 7440-66-6/BI OR 8059-24-3/BI)
L56          9 SEA FILE=REGISTRY ABB=ON  PLU=ON  L5 NOT L3
L66          3863 SEA FILE=MEDLINE ABB=ON  PLU=ON  L3
L68          71376 SEA FILE=MEDLINE ABB=ON  PLU=ON  ?HAIR?
L88          143990 SEA FILE=MEDLINE ABB=ON  PLU=ON  L56
L91          2 SEA FILE=MEDLINE ABB=ON  PLU=ON  L66 AND L88 AND L68
```

=> d que nos L92

```
L2          STR
L3          118 SEA FILE=REGISTRY FAM FUL L2
L5          10 SEA FILE=REGISTRY ABB=ON  PLU=ON  (124-20-9/BI OR 137-08-6/BI
OR 1406-18-4/BI OR 50-81-7/BI OR 58-85-5/BI OR 59-30-3/BI OR
63-68-3/BI OR 7440-50-8/BI OR 7440-66-6/BI OR 8059-24-3/BI)
L56          9 SEA FILE=REGISTRY ABB=ON  PLU=ON  L5 NOT L3
L65          1966 SEA FILE=MEDLINE ABB=ON  PLU=ON  BALD?
L66          3863 SEA FILE=MEDLINE ABB=ON  PLU=ON  L3
L88          143990 SEA FILE=MEDLINE ABB=ON  PLU=ON  L56
L92          0 SEA FILE=MEDLINE ABB=ON  PLU=ON  L66 AND L88 AND L65
```

=> s (L90-L92) not L169

L184 2 ((L90 OR L91 OR L92)) NOT L169

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=> file embase

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=> d que nos L128

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L2          STR
L3          118 SEA FILE=REGISTRY FAM FUL L2
L5          10 SEA FILE=REGISTRY ABB=ON  PLU=ON  (124-20-9/BI OR 137-08-6/BI
OR 1406-18-4/BI OR 50-81-7/BI OR 58-85-5/BI OR 59-30-3/BI OR
63-68-3/BI OR 7440-50-8/BI OR 7440-66-6/BI OR 8059-24-3/BI)
L56          9 SEA FILE=REGISTRY ABB=ON  PLU=ON  L5 NOT L3
L108         59675 SEA FILE=EMBASE ABB=ON  PLU=ON  ?HAIR?
```

```

L109      16821 SEA FILE=EMBASE ABB=ON  PLU=ON  ALOPECIA+NT/CT
L110      3093 SEA FILE=EMBASE ABB=ON  PLU=ON  ?BALD?
L111      4309 SEA FILE=EMBASE ABB=ON  PLU=ON  L3
L126     140939 SEA FILE=EMBASE ABB=ON  PLU=ON  L56
L127      96 SEA FILE=EMBASE ABB=ON  PLU=ON  L111 AND L126
L128      1 SEA FILE=EMBASE ABB=ON  PLU=ON  L127 AND (L108 OR L109 OR
      L110)

```

=> d que nos L137

```

L2          STR
L3          118 SEA FILE=REGISTRY FAM FUL L2
L5          10 SEA FILE=REGISTRY ABB=ON  PLU=ON  (124-20-9/BI OR 137-08-6/BI
      OR 1406-18-4/BI OR 50-81-7/BI OR 58-85-5/BI OR 59-30-3/BI OR
      63-68-3/BI OR 7440-50-8/BI OR 7440-66-6/BI OR 8059-24-3/BI)
L56         9 SEA FILE=REGISTRY ABB=ON  PLU=ON  L5 NOT L3
L108       59675 SEA FILE=EMBASE ABB=ON  PLU=ON  ?HAIR?
L109       16821 SEA FILE=EMBASE ABB=ON  PLU=ON  ALOPECIA+NT/CT
L110       3093 SEA FILE=EMBASE ABB=ON  PLU=ON  ?BALD?
L126     140939 SEA FILE=EMBASE ABB=ON  PLU=ON  L56
L131       SEL  PLU=ON  L3 1- CHEM :      153 TERMS
L132       6199 SEA FILE=EMBASE ABB=ON  PLU=ON  L131
L137      1 SEA FILE=EMBASE ABB=ON  PLU=ON  L132 AND L126 AND (L108 OR
      L109 OR L110)

```

=> s (L128 or L137) not L170

L185 1 (L128 OR L137) NOT L170

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=> file biosis

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=> d que nos L164

```

L2          STR
L3          118 SEA FILE=REGISTRY FAM FUL L2
L5          10 SEA FILE=REGISTRY ABB=ON  PLU=ON  (124-20-9/BI OR 137-08-6/BI
      OR 1406-18-4/BI OR 50-81-7/BI OR 58-85-5/BI OR 59-30-3/BI OR
      63-68-3/BI OR 7440-50-8/BI OR 7440-66-6/BI OR 8059-24-3/BI)
L56         9 SEA FILE=REGISTRY ABB=ON  PLU=ON  L5 NOT L3
L146       6700 SEA FILE=BIOSIS ABB=ON  PLU=ON  L3
L147       SEL  PLU=ON  L3 1- CHEM :      153 TERMS
L148       9531 SEA FILE=BIOSIS ABB=ON  PLU=ON  L147
L149       70712 SEA FILE=BIOSIS ABB=ON  PLU=ON  ?HAIR?
L150       6751 SEA FILE=BIOSIS ABB=ON  PLU=ON  ?ALOPECIA?
L151       5417 SEA FILE=BIOSIS ABB=ON  PLU=ON  ?BALD?
L152       9531 SEA FILE=BIOSIS ABB=ON  PLU=ON  L146 OR L148
L162     171224 SEA FILE=BIOSIS ABB=ON  PLU=ON  L56
L163      171 SEA FILE=BIOSIS ABB=ON  PLU=ON  L152 AND L162

```

L164 1 SEA FILE=BIOSIS ABB=ON PLU=ON L163 AND (L149 OR L150 OR L151)

=> s L164 not L171

L186 1 L164 NOT L171

pointed with author search

=> => dup rem L183 L184 L185 L186

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FILE 'BIOSIS' ENTERED AT 16:21:07 ON 11 JAN 2006

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PROCESSING COMPLETED FOR L183

PROCESSING COMPLETED FOR L184

PROCESSING COMPLETED FOR L185

PROCESSING COMPLETED FOR L186

L187 11 DUP REM L183 L184 L185 L186 (1 DUPLICATE REMOVED)

ANSWERS '1-8' FROM FILE CAPLUS

ANSWERS '9-10' FROM FILE MEDLINE

ANSWER '11' FROM FILE EMBASE

=> d ibib abs hitind hitstr L187 1-8; d iall L187 9-11

L187 ANSWER 1 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:1001904 CAPLUS

DOCUMENT NUMBER: 143:292553

TITLE: Composition for regulating the trophism of
hair follicles and the cutaneous production of
sebum and use thereof in androgenetic **alopecia**

INVENTOR(S): Giuliani, Giammaria; Benedusi, Anna; Bellinvia,
Salvatore; Rinaldi, Fabio

PATENT ASSIGNEE(S): Giuliani S.P.A., Italy

SOURCE: PCT Int. Appl., 49 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005084621	A1	20050915	WO 2005-IB544	20050301
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,				

RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:

IT 2004-MI386

A 20040302

IT 2004-MI388

A 20040302

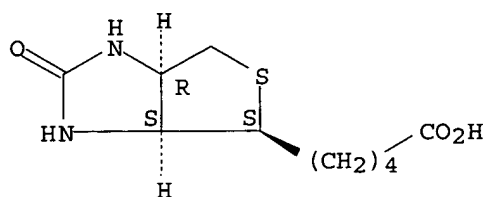
- AB The present invention relates to a composition for regulating the trophism of hair follicles and the cutaneous production of sebum and its use in androgenetic **alopecia**, comprising the synergic association of an extract from *Boehmeria nipoanonivea* which inhibits the 5 α -reductase with a compound active at the keratin epithelial structure level, selected from specific sulfur-donor compds. and antioxidants. The composition of the invention is suitable for topical and/or oral administration. For example, *Boehmeria* extract showed an inhibiting capacity of 5 α -reductase quant. comparable to that of finasteride, but lasting longer. Dietary supplement in tablet form suitable for the prevention of androgenetic **alopecia** in males and females contained spermidine trihydrochloride 0.50 mg, calcium pantothenate 9 mg, d-biotin 0.150 mg, B. nipoanonivea extract 150 mg, quercetin 0.90 mg, taurine 100 mg, zinc amino acid chelate 7.5 mg, copper amino acid chelate 1.20 mg, folic acid 0.30 mg, microcryst. cellulose 90.0 mg, calcium phosphate dibasic dihydrate 80.0 mg, hydroxypropyl Me cellulose 52.5 mg, magnesium stearate 7.90 mg, and silicon dioxide 1.70 mg.
- IC ICM A61K007-06
ICS A23L001-30; A61K031-00
- CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1, 62
- ST *Boehmeria* ext antioxidant sulfur donor oral topical androgenetic **alopecia**; reductase inhibitor *Boehmeria* ext **hair** growth stimulant
- IT Epithelium
(cutaneous; oral and topical compns. comprising *Boehmeria nipoanonivea* extract and sulfur donor compound for treatment of androgenetic **alopecia** by regulating trophism of **hair** follicles and cutaneous production of sebum)
- IT Skin
(epithelium; oral and topical compns. comprising *Boehmeria nipoanonivea* extract and sulfur donor compound for treatment of androgenetic **alopecia** by regulating trophism of **hair** follicles and cutaneous production of sebum)
- IT *Boehmeria nipoanonivea*
(extract; oral and topical compns. comprising *Boehmeria nipoanonivea* extract and sulfur donor compound for treatment of androgenetic **alopecia** by regulating trophism of **hair** follicles and cutaneous production of sebum)
- IT **Hair**
(follicle, trophism; oral and topical compns. comprising *Boehmeria nipoanonivea* extract and sulfur donor compound for treatment of androgenetic **alopecia** by regulating trophism of **hair** follicles and cutaneous production of sebum)
- IT **Hair** preparations
(growth stimulants; oral and topical compns. comprising *Boehmeria nipoanonivea* extract and sulfur donor compound for treatment of androgenetic **alopecia** by regulating trophism of **hair** follicles and cutaneous production of sebum)
- IT Flavones
RL: NPO (Natural product occurrence); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(hydroxy; oral and topical compns. comprising *Boehmeria nipoanonivea* extract and sulfur donor compound for treatment of androgenetic **alopecia** by regulating trophism of **hair** follicles and cutaneous production of sebum)

- IT Flavones
RL: NPO (Natural product occurrence); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(isoflavones; oral and topical compns. comprising Boehmeria nipoanonivea extract and sulfur donor compound for treatment of androgenetic **alopecia** by regulating trophism of **hair** follicles and cutaneous production of sebum)
- IT Oxidative stress, biological
(keratin structures damage by, reduction of; oral and topical compns. comprising Boehmeria nipoanonivea extract and sulfur donor compound for treatment of androgenetic **alopecia** by regulating trophism of **hair** follicles and cutaneous production of sebum)
- IT **Alopecia**
(male pattern; oral and topical compns. comprising Boehmeria nipoanonivea extract and sulfur donor compound for treatment of androgenetic **alopecia** by regulating trophism of **hair** follicles and cutaneous production of sebum)
- IT Anti-inflammatory agents
Antioxidants
Combination chemotherapy
Human
Limnanthes alba
Rosmarinus officinalis
Vitellaria paradoxa
(oral and topical compns. comprising Boehmeria nipoanonivea extract and sulfur donor compound for treatment of androgenetic **alopecia** by regulating trophism of **hair** follicles and cutaneous production of sebum)
- IT Androgens
Keratins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(oral and topical compns. comprising Boehmeria nipoanonivea extract and sulfur donor compound for treatment of androgenetic **alopecia** by regulating trophism of **hair** follicles and cutaneous production of sebum)
- IT Carotenes, biological studies
Flavanols
Flavonoids
Isoprenoids
Saponins
Tocopherols
RL: NPO (Natural product occurrence); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(oral and topical compns. comprising Boehmeria nipoanonivea extract and sulfur donor compound for treatment of androgenetic **alopecia** by regulating trophism of **hair** follicles and cutaneous production of sebum)
- IT Drug delivery systems
(oral; oral and topical compns. comprising Boehmeria nipoanonivea extract and sulfur donor compound for treatment of androgenetic **alopecia** by regulating trophism of **hair** follicles and cutaneous production of sebum)
- IT Flavonoids
RL: NPO (Natural product occurrence); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(oxo dihydro; oral and topical compns. comprising Boehmeria nipoanonivea extract and sulfur donor compound for treatment of androgenetic **alopecia** by regulating trophism of **hair** follicles and cutaneous production of sebum)
- IT Natural products, pharmaceutical

- RL: NPO (Natural product occurrence); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(phenylpropanoid; oral and topical compns. comprising Boehmeria nipononivea extract and sulfur donor compound for treatment of androgenetic alopecia by regulating trophism of hair follicles and cutaneous production of sebum)
- IT Ajuga reptans
(phenylpropanoids from; oral and topical compns. comprising Boehmeria nipononivea extract and sulfur donor compound for treatment of androgenetic alopecia by regulating trophism of hair follicles and cutaneous production of sebum)
- IT Acne
Hirsutism
Seborrhea
(prevention or treatment; oral and topical compns. comprising Boehmeria nipononivea extract and sulfur donor compound for treatment of androgenetic alopecia by regulating trophism of hair follicles and cutaneous production of sebum)
- IT Sebum
(production of; oral and topical compns. comprising Boehmeria nipononivea extract and sulfur donor compound for treatment of androgenetic alopecia by regulating trophism of hair follicles and cutaneous production of sebum)
- IT Citrus paradisi
(seed extract; oral and topical compns. comprising Boehmeria nipononivea extract and sulfur donor compound for treatment of androgenetic alopecia by regulating trophism of hair follicles and cutaneous production of sebum)
- IT Organic compounds, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(sulfur-containing; oral and topical compns. comprising Boehmeria nipononivea extract and sulfur donor compound for treatment of androgenetic alopecia by regulating trophism of hair follicles and cutaneous production of sebum)
- IT Amino acids, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(sulfurated; oral and topical compns. comprising Boehmeria nipononivea extract and sulfur donor compound for treatment of androgenetic alopecia by regulating trophism of hair follicles and cutaneous production of sebum)
- IT Diet
(supplements; oral and topical compns. comprising Boehmeria nipononivea extract and sulfur donor compound for treatment of androgenetic alopecia by regulating trophism of hair follicles and cutaneous production of sebum)
- IT Alopecia
(telogenic effluvium; oral and topical compns. comprising Boehmeria nipononivea extract and sulfur donor compound for treatment of androgenetic alopecia by regulating trophism of hair follicles and cutaneous production of sebum)
- IT Drug delivery systems
(topical; oral and topical compns. comprising Boehmeria nipononivea extract and sulfur donor compound for treatment of androgenetic alopecia by regulating trophism of hair follicles and cutaneous production of sebum)
- IT 7704-34-9, Sulfur, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(donors; oral and topical compns. comprising Boehmeria nipononivea extract and sulfur donor compound for treatment of androgenetic alopecia by regulating trophism of hair follicles and cutaneous production of sebum)

- of sebum)
- IT 9081-34-9, 5 α -Reductase
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (inhibition of; oral and topical compns. comprising Boehmeria
 nipononivea extract and sulfur donor compound for treatment of androgenetic
alopecia by regulating trophism of **hair** follicles and
 cutaneous production of sebum)
- IT 58-22-0, Testosterone 521-18-6, 5 α -Dihydrotestosterone
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (oral and topical compns. comprising Boehmeria nipononivea extract and
 sulfur donor compound for treatment of androgenetic **alopecia** by
 regulating trophism of **hair** follicles and cutaneous production of
 sebum)
- IT 117-39-5, Quercetin 327-97-9, Chlorogenic acid 331-39-5, Caffeic acid
 446-72-0, Genistein 480-41-1, Naringenine 486-66-8, Daidzein
 520-18-3, Kaempferol 6829-55-6D, Tocotrienol, derivs. 10597-60-1,
 Hydroxytyrosol 143617-02-1, Teupolioside
 RL: NPO (Natural product occurrence); THU (Therapeutic use); BIOL
 (Biological study); OCCU (Occurrence); USES (Uses)
 (oral and topical compns. comprising Boehmeria nipononivea extract and
 sulfur donor compound for treatment of androgenetic **alopecia** by
 regulating trophism of **hair** follicles and cutaneous production of
 sebum)
- IT 52-90-4D, L-Cysteine, sulfurated 56-89-3D, L-Cystine, sulfurated
 58-85-5 59-30-3, Folic acid, biological studies
 63-68-3, L-Methionine, biological studies 63-68-3D,
 L-Methionine, sulfurated 67-71-0, Methylsulfonylmethane 107-35-7,
 Taurine 137-08-6, Calcium pantothenate 303-98-0, Ubidecarenone
 334-50-9, Spermidine trihydrochloride 501-36-0, Resveratrol
 7235-40-7, β -Carotene 7439-96-5D, Manganese, amino acid chelate
 7440-50-8D, Copper, amino acid chelate 7440-66-6D, Zinc,
 amino acid chelate 8059-24-3, Vitamin B6 153302-05-7, Pronalen
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (oral and topical compns. comprising Boehmeria nipononivea extract and
 sulfur donor compound for treatment of androgenetic **alopecia** by
 regulating trophism of **hair** follicles and cutaneous production of
 sebum)
- IT 58-85-5 59-30-3, Folic acid, biological studies
 63-68-3, L-Methionine, biological studies 63-68-3D,
 L-Methionine, sulfurated 137-08-6, Calcium pantothenate
 334-50-9, Spermidine trihydrochloride 7440-50-8D,
 Copper, amino acid chelate 7440-66-6D, Zinc, amino acid chelate
 8059-24-3, Vitamin B6
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (oral and topical compns. comprising Boehmeria nipononivea extract and
 sulfur donor compound for treatment of androgenetic **alopecia** by
 regulating trophism of **hair** follicles and cutaneous production of
 sebum)
- RN 58-85-5 CAPLUS
- CN 1H-Thieno[3,4-d]imidazole-4-pentanoic acid, hexahydro-2-oxo-,
 (3aS,4S,6aR) - (9CI) (CA INDEX NAME)

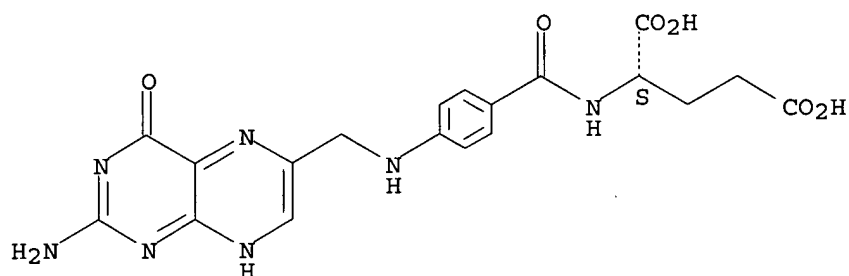
Absolute stereochemistry. Rotation (+).



RN 59-30-3 CAPLUS

CN L-Glutamic acid, N-[4-[[[(2-amino-1,4-dihydro-4-oxo-6-pteridiny]methyl]amino]benzoyl]- (9CI) (CA INDEX NAME)

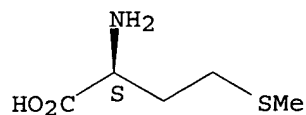
Absolute stereochemistry.



RN 63-68-3 CAPLUS

CN L-Methionine (9CI) (CA INDEX NAME)

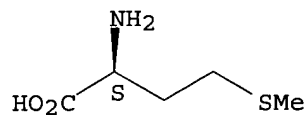
Absolute stereochemistry.



RN 63-68-3 CAPLUS

CN L-Methionine (9CI) (CA INDEX NAME)

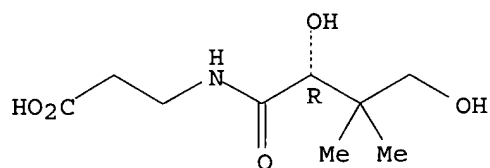
Absolute stereochemistry.



RN 137-08-6 CAPLUS

CN β-Alanine, N-[(2R)-2,4-dihydroxy-3,3-dimethyl-1-oxobutyl]-, calcium salt (2:1) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



● 1/2 Ca

RN 334-50-9 CAPLUS
CN 1,4-Butanediol, N-(3-aminopropyl)-, trihydrochloride (8CI, 9CI) (CA INDEX NAME)

H₂N-(CH₂)₄-NH-(CH₂)₃-NH₂

● 3 HCl

RN 7440-50-8 CAPLUS
CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)

Cu

RN 7440-66-6 CAPLUS
CN Zinc (7CI, 8CI, 9CI) (CA INDEX NAME)

Zn

RN 8059-24-3 CAPLUS
CN Vitamin B6 (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L187 ANSWER 2 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:393970 CAPLUS

DOCUMENT NUMBER: 142:435752

TITLE: Drugs composed of ω -polyunsaturated fatty amides or esters with biogenic amines or alcohols

INVENTOR(S): Langlotz, Rainer

PATENT ASSIGNEE(S): Germany

SOURCE: Eur. Pat. Appl., 13 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

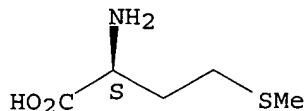
LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1527776	A1	20050504	EP 2004-25873	20041101
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR, IS, YU				
DE 10351111	A1	20050616	DE 2003-10351111	20031103
PRIORITY APPLN. INFO.: DE 2003-10351111 A 20031103				
AB	The invention concerns drugs that are prepared from omega-x polyunsatd. C17-C23 fatty acids (X = 3-9) and biogenic amines that are derived from natural amino acids by decarboxylation; esters with alcs. derived from amino acids are also prepared Polyunsatd. fatty acids are isolated from natural products, e.g. borage oil, evening primrose oil, red current seed oil, hemp seed oil, pine seed oil, fish oil or lard. The preparation method includes the reaction of the amine or alc. with the polyunsatd. fatty acid, isolation of the product and drug formulation. The drugs are used to treat various diseases and in cosmetic products. Thus 1,4-diaminobutene was prepared from ornithine and reacted with arachidonic acid chloride,. The 4-aminobutyl arachidonoylamide was purified by reverse HPLC. The product was mixed with the components of a base cream. The cream was topically applied and had anticonvulsive and antidepressive effect without the side effects of conventional cannabinoids.			
IC	ICM A61K031-16 ICS A61K031-215; A61K031-557; A61P043-00; A61P029-00; A61P001-00; A61P009-12; A61P011-06; A61P025-00; A61P025-02; A61P025-06; A61P025-18; A61P027-02; A61P037-06			
CC	63-4 (Pharmaceuticals) Section cross-reference(s): 1, 26			
IT	Hair preparations (growth stimulants; drugs composed of ω-polyunsatd. fatty amides or esters with biogenic amines or alcs.)			
IT	51-35-4, L-Hydroxyproline 52-90-4, L-Cysteine, reactions 56-41-7, L-Alanine, reactions 56-87-1, L-Lysine, reactions 56-89-3, L-Cystine, reactions 57-55-6, 1,2-Propanediol, reactions 60-12-8, 2-Phenylethanol 60-24-2, 2-Mercaptoethanol 61-90-5, L-Leucine, reactions 63-68-3, L-Methionine, reactions 70-26-8, Ornithine 71-00-1, L-Histidine, reactions 72-18-4, L-Valine, reactions 73-22-3, L-Tryptophan, reactions 73-32-5, L-Isoleucine, reactions 74-79-3, L-Arginine, reactions 78-83-1, Isobutanol, reactions 110-60-1, 1,4-Diaminobutane 123-51-3, Isopentanol 124-20-9, N-(3-Aminopropyl)-1,4-diaminobutane 137-32-6 147-85-3, L-Proline, reactions 306-60-5, Agmatine 501-94-0 505-10-2, 3-Methylthiopropanol 506-26-3, γ-Linolenic acid 506-32-1, Arachidonic acid 526-55-6, Tryptophol 622-40-2, 4-Morpholineethanol 872-82-2, 1H-Imidazole-4-ethanol 1553-41-9, 5,8,11,14,17-Eicosapentaenoic acid 1783-84-2 2508-29-4, 5-Aminopentanol 7019-85-4, Sciadonic acid 17581-95-2 20290-75-9, Stearidonic acid 20590-32-3, Mead acid 24257-10-1 25182-74-5, Osbond acid 34711-40-5 40499-83-0, 3-Hydroxypyrrolidine 98770-65-1, 5,8,11,14,17-Eicosapentaenoyl chloride, (all-Z)- 850895-46-4 850895-47-5 RL: RCT (Reactant); RACT (Reactant or reagent) (drugs composed of ω-polyunsatd. fatty amides or esters with biogenic amines or alcs.)			
IT	63-68-3, L-Methionine, reactions 124-20-9, N-(3-Aminopropyl)-1,4-diaminobutane RL: RCT (Reactant); RACT (Reactant or reagent) (drugs composed of ω-polyunsatd. fatty amides or esters with biogenic amines or alcs.)			
RN	63-68-3 CAPLUS			
CN	L-Methionine (9CI) (CA INDEX NAME)			

Absolute stereochemistry.



RN 124-20-9 CAPLUS

CN 1,4-Butanediol, N-(3-aminopropyl)- (8CI, 9CI) (CA INDEX NAME)

H₂N-(CH₂)₄-NH-(CH₂)₃-NH₂

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L187 ANSWER 3 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:991310 CAPLUS

DOCUMENT NUMBER: 140:31162

TITLE: Use of an agent mimicking dopachrome tautomerase (Trp-2) activity as protective agent for **hair** follicle melanocytes and uses thereof

INVENTOR(S): Commo, Stephane; Gaillard, Olivier; Bernard, Bruno

PATENT ASSIGNEE(S): L'oreal, Fr.

SOURCE: PCT Int. Appl., 32 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003103616	A2	20031218	WO 2003-FR1729	20030610
WO 2003103616	A3	20040415		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
FR 2840531	A1	20031212	FR 2002-7137	20020611
FR 2840531	B1	20041029		
CA 2487945	AA	20031218	CA 2003-2487945	20030610
EP 1515688	A2	20050323	EP 2003-757134	20030610
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
US 2005186233	A1	20050825	US 2004-9153	20041213
PRIORITY APPLN. INFO.:			FR 2002-7137	A 20020611
			US 2002-389708P	P 20020619
			WO 2003-FR1729	W 20030610

AB The invention concerns the cosmetic use of an agent mimicking dopachrome tautomerase (Trp-2) activity as protective agent for hair follicle

melanocytes and its use, in particular for fighting against canities. The invention also concerns specific cosmetic compns. for fighting against canities comprising in a cosmetically acceptable medium at least an agent mimicking dopachrome tautomerase (Trp-2) activity and their uses. The invention further concerns a method for treating canities and a method for preserving natural pigmentation of gray or white hair and/or hairs by applying a cosmetic composition comprising at least one agent mimicking dopachrome tautomerase activity. Finally, the invention concerns a method for identifying at least one agent mimicking dopachrome tautomerase (Trp-2) activity and a method for evaluating its cytoprotective activity. A hair lotion contained dopachrome tautomerase 0.5, propylene glycol 20, ethanol 30 and water q.s. 100 g.

IC ICM A61K007-06

CC 62-3 (Essential Oils and Cosmetics)

ST dopachrome tautomerase mimicking agent **hair** follicle whitening

IT Steroids, biological studies

RL: COS (Cosmetic use); PAC (Pharmacological activity); BIOL (Biological study); USES (Uses)

(amino; cosmetic composition containing agent mimicking activity of

dopachrome

tautomerase to prevent **hair** whitening)

IT Antioxidants

Cytoprotective agents

Melanocyte

Microspheres

Shampoos

(cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)

IT Polysiloxanes, biological studies

RL: COS (Cosmetic use); PAC (Pharmacological activity); BIOL (Biological study); USES (Uses)

(cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)

IT Amines, biological studies

RL: COS (Cosmetic use); PAC (Pharmacological activity); BIOL (Biological study); USES (Uses)

(diamines; cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)

IT **Hair**

(follicle; cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)

IT **Hair** preparations

(gels; cosmetic composition containing agent mimicking activity of

dopachrome

tautomerase to prevent **hair** whitening)

IT **Hair** preparations

(lotions; cosmetic composition containing agent mimicking activity of

dopachrome

tautomerase to prevent **hair** whitening)

IT Drug delivery systems

(nanocapsules; cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)

IT Nanostructures

Spheres

(nanospheres; cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)

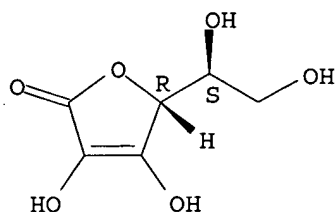
IT Amines, biological studies

RL: COS (Cosmetic use); PAC (Pharmacological activity); BIOL (Biological study); USES (Uses)

(polyamines, nonpolymeric; cosmetic composition containing agent mimicking

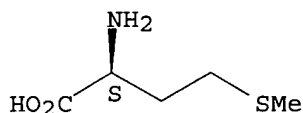
- activity of dopachrome tautomerase to prevent **hair** whitening)
- IT Amines, biological studies
RL: COS (Cosmetic use); PAC (Pharmacological activity); BIOL (Biological study); USES (Uses)
(steroidal; cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)
- IT Amines, biological studies
RL: COS (Cosmetic use); PAC (Pharmacological activity); BIOL (Biological study); USES (Uses)
(triamines; cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)
- IT **Hair**
(whiteness; cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)
- IT 9054-89-1, Superoxide dismutase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)
- IT **50-81-7D**, Ascorbic acid, derivs. **50-81-7D**, Vitamin c, reaction products with mono and diesters of cinnamic acid **63-68-3**, Methionine, biological studies 71-00-1, Histidine, biological studies 71-44-3, Spermine 73-22-3, Tryptophane, biological studies 110-60-1, Putrescine 117-39-5, Quercetine 121-79-9, Propyl gallate **124-20-9**, Spermidine 529-35-1D, derivs. 621-82-9D, Cinnamic acid, esters, reaction products with vitamin C 3376-24-7 12619-70-4D, Cyclodextrin, derivs. 53177-12-1, Euk-8 53188-07-1, Trolox 60940-34-3, Ebselen 64855-91-0D, derivs. 85153-23-7D, derivs. 187536-23-8D, derivs.
RL: COS (Cosmetic use); PAC (Pharmacological activity); BIOL (Biological study); USES (Uses)
(cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)
- IT 15663-27-1, Cisplatin
RL: PAC (Pharmacological activity); BIOL (Biological study)
(cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)
- IT 130122-81-5, Dopachrome tautomerase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(mimicking agents; cosmetic composition containing agent mimicking activity of
of dopachrome tautomerase to prevent **hair** whitening)
- IT **50-81-7D**, Ascorbic acid, derivs. **63-68-3**, Methionine, biological studies **124-20-9**, Spermidine
RL: COS (Cosmetic use); PAC (Pharmacological activity); BIOL (Biological study); USES (Uses)
(cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)
- RN 50-81-7 CAPLUS
CN L-Ascorbic acid (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 63-68-3 CAPLUS
CN L-Methionine (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 124-20-9 CAPLUS
CN 1,4-Butanediamine, N-(3-aminopropyl)- (8CI, 9CI) (CA INDEX NAME)

$\text{H}_2\text{N}-(\text{CH}_2)_4-\text{NH}-(\text{CH}_2)_3-\text{NH}_2$

L187 ANSWER 4 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:971738 CAPLUS
DOCUMENT NUMBER: 140:23273
TITLE: N-Acetyl cysteine and its topical use
INVENTOR(S): Yu, Ruey J.; Van Scott, Eugene J.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 8 pp., Cont.-in-part of U.S.
Pat. Appl. 2003 198,656.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003229141	A1	20031211	US 2003-462885	20030617
US 6159485	A	20001212	US 1999-227213	19990108
EP 1570840	A2	20050907	EP 2004-29094	20000107
EP 1570840	A3	20051116		
R: DE, ES, FR, GB, IT				
US 6524593	B1	20030225	US 2000-560901	20000428
US 2003198656	A1	20031023	US 2003-371504	20030221
US 6808716	B2	20041026		
PRIORITY APPLN. INFO.:			US 1999-227213	A1 19990108
			US 2000-560901	A2 20000428
			US 2003-371504	A2 20030221
			EP 2000-902347	A3 20000107

AB Methods to alleviate or improve various cosmetic conditions and dermatol. disorders, including changes or damage to skin, nail and hair associated with

intrinsic aging and/or extrinsic aging, as well as changes or damage caused by extrinsic factors using compns. comprising N-acetyl-cysteine (isomeric or non-isomeric forms) and/or free acid, salt, lactone, amide or ester forms of N-acetyl-cysteine are described. The methods provided may also comprise application of a composition further containing various cosmetic, pharmaceutical or other topical agents to enhance or create synergetic effects.

IC ICM A61K031-22
ICS A61K031-16; A61K031-198
INCL 514550000; 514562000; 514626000
CC 1-12 (Pharmacology)
Section cross-reference(s): 62
IT **Hair preparations**
(antidandruff; acetyl cysteine and its topical use)
IT **Hair preparations**
(conditioners; acetyl cysteine and its topical use)
IT 50-02-2, Dexamethasone 50-03-3, Hydrocortisone 21-acetate 50-23-7, Hydrocortisone 50-28-2, Estradiol, biological studies 50-48-6, Amitriptyline 50-78-2, Acetylsalicylic acid 50-81-7, Ascorbic acid, biological studies 51-03-6, Piperonyl butoxide 51-21-8, 5-Fluorouracil 51-55-8, Atropine, biological studies 53-43-0, Dehydroepiandrosterone 53-86-1, Indomethacin 55-56-1, Chlorhexidine 57-13-6, Urea, biological studies 57-63-6, Ethinyl estradiol 58-73-1, Diphenhydramine 58-95-7, Vitamin E acetate 59-33-6, Pyrilamine maleate 59-42-7, Phenylephrine 59-46-1, Procaine 60-54-8, Tetracycline 64-65-3, Bemegride 65-45-2, Salicylamide 67-73-2, Fluocinolone acetate 67-78-7, Triamcinolone diacetate 68-26-8, Retinol 68-35-9, Sulfadiazine 68-41-7, Cycloserine 68-88-2, Hydroxyzine 69-72-7, Salicylic acid, biological studies 70-18-8, Glutathione, biological studies 70-18-8D, Glutathione, derivs. 76-22-2, Camphor 76-25-5, Triamcinolone acetate 79-81-2, Retinyl palmitate 84-22-0, Tetrahydrozoline 86-21-5, Pheniramine 86-22-6, Brompheniramine 89-83-8, Thymol 90-45-9, Aminacrine 90-82-4, Pseudoephedrine 93-14-1, Guaifenesin 93-60-7, Methyl nicotinate 94-36-0, Benzoyl peroxide, biological studies 96-88-8, Mepivacaine 103-16-2, Monobenzone 108-46-3, Resorcinol, biological studies 108-95-2, Phenol, biological studies 112-38-9, Undecylenic acid 113-92-8, Chlorpheniramine maleate 114-07-8, Erythromycin 116-31-4, Retinal 118-56-9, Homosalate 118-60-5, Octyl salicylate 119-36-8, Methyl salicylate 119-61-9, Benzophenone, biological studies 123-31-9, Hydroquinone, biological studies 123-31-9D, Hydroquinone, monoether 123-99-9, Azelaic acid, biological studies 124-43-6, Carbamide peroxide 126-07-8, Griseofulvin 127-47-9, Retinyl acetate 130-26-7, Clioquinol 131-57-7, Oxybenzone 136-47-0 136-77-6, Hexylresorcinol 137-58-6, Lidocaine 137-66-6, Ascorbyl palmitate 139-12-8, Aluminum acetate 140-65-8, Pramoxine 302-79-4, Retinoic acid 356-12-7, Fluocinonide 382-67-2, Desoximetasone 404-86-4, Capsaicin 443-48-1, Metronidazole 483-63-6, Crotamiton 486-12-4, Triprolidine 501-30-4, Kojic acid 518-28-5, Podofilox 525-66-6, Propranolol 536-43-6, Dyclonine 562-10-7 569-65-3, Meclizine 616-91-1, N-Acetylcysteine 721-50-6, Prilocaine 768-94-5, Amantadine 777-11-7, Haloprogin 880-52-4 1143-38-0, Anthralin 1319-82-0, Aminocaproic acid 1321-11-5, Aminobenzoic acid 1321-23-9, Chloroxylenol 1327-41-9, Aluminum chlorohydroxide 1400-61-9, Nystatin 1405-87-4, Bacitracin 1490-04-6, Menthol 1491-59-4, Oxymetazoline 1668-19-5, Doxepin 2013-58-3, Meclocycline 2152-44-5, Betamethasone valerate 2398-96-1, Tolnaftate 3380-34-5, Triclosan 4759-48-2, Retinoic acid, 13-cis 5466-77-3, Octyl methoxycinnamate 5534-09-8, Beclomethasone dipropionate 5593-20-4, Betamethasone dipropionate 5611-51-8, Triamcinolone hexacetate 7446-70-0, Aluminum chloride, biological studies 7652-46-2,

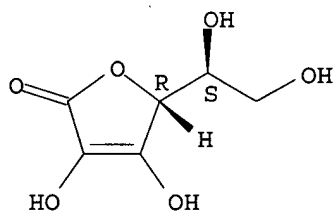
N-Acetyl-L-cysteine methyl ester 7704-34-9, Sulfur, biological studies
 7722-84-1, Hydrogen peroxide, biological studies 8029-68-3, Ichthammol
 9012-76-4, Chitosan 10118-90-8, Minocycline 12650-69-0, Mupirocin
 13463-41-7, Zinc pyrithione 13609-67-1, Hydrocortisone 17-butyrate
 13889-98-0, N-Acetylpiperazine 14114-64-8 14838-15-4,
 Phenylpropanolamine 15686-51-8, Clemastine 15687-27-1, Ibuprofen
 16110-51-3, Cromolyn 16265-37-5, N-Acetyladenosine 18323-44-9,
 Clindamycin 18559-94-9, Albuterol 19547-88-7 19962-37-9
 21245-02-3, Padimate O 21645-51-2, Aluminum hydroxide, biological
 studies 22071-15-4, Ketoprofen 22204-53-1, Naproxen 22916-47-8,
 Miconazole 23593-75-1, Clotrimazole 25122-46-7, Clobetasol propionate
25168-11-0, Acetylspermidine 25655-41-8, Povidone iodine
 27220-47-9, Econazole 28088-64-4, Aminosalicyclic acid 29342-05-0,
 Ciclopirox 38304-91-5, Minoxidil 38396-39-3, Bupivacaine 38520-57-9
 52485-51-5 52645-53-1, Permethrin 56093-45-9, Selenium sulfide
 56805-18-6 57524-89-7, Hydrocortisone 17-valerate 59277-89-3,
 Acyclovir 59587-09-6, N-Acetyl-L-cysteine ethyl ester 61318-90-9,
 Sulconazole 61906-52-3, Acetylspermine 64211-45-6, Oxiconazole
 64872-76-0, Butoconazole 65277-42-1, Ketoconazole 65472-88-0,
 Naftifine 65899-73-2, Tioconazole 66734-13-2, Aclovate 67607-91-4
 67915-31-5, Terconazole 73255-51-3, N-Acetyl-L-cysteine isopropyl ester
 91161-71-6, Terbinafine 99011-02-6, Imiquimod 106685-40-9, Adapalene
 112965-21-6, Calcipotriene 118292-40-3, Tazarotene 318471-38-4
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
 (Biological study); USES (Uses)
 (acetyl cysteine and its topical use)

IT **50-81-7**, Ascorbic acid, biological studies **25168-11-0**,
 Acetylspermidine
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
 (Biological study); USES (Uses)
 (acetyl cysteine and its topical use)

RN 50-81-7 CAPLUS

CN L-Ascorbic acid (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 25168-11-0 CAPLUS

CN 1,4-Butanediamine, N-(3-aminopropyl)-, N-acetyl deriv. (8CI, 9CI) (CA
 INDEX NAME)

CM 1

CRN 124-20-9

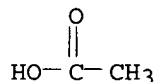
CMF C7 H19 N3

$\text{H}_2\text{N}-(\text{CH}_2)_4-\text{NH}-(\text{CH}_2)_3-\text{NH}_2$

CM 2

CRN 64-19-7

CMF C2 H4 O2



L187 ANSWER 5 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:971575 CAPLUS

DOCUMENT NUMBER: 140:31172

TITLE: Cosmetic composition containing an agent mimicking the activity of dopachrome tautomerase (Trp-2) to prevent hair whitening

INVENTOR(S): Commo, Stephane; Gaillard, Olivier; Bernard, Bruno

PATENT ASSIGNEE(S): L'oreal, Fr.

SOURCE: Fr. Demande, 39 pp.

CODEN: FRXXBL

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2840531	A1	20031212	FR 2002-7137	20020611
FR 2840531	B1	20041029		
CA 2487945	AA	20031218	CA 2003-2487945	20030610
WO 2003103616	A2	20031218	WO 2003-FR1729	20030610
WO 2003103616	A3	20040415		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1515688	A2	20050323	EP 2003-757134	20030610
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 2005186233	A1	20050825	US 2004-9153	20041213
PRIORITY APPLN. INFO.:				
			FR 2002-7137	A 20020611
			US 2002-389708P	P 20020619
			WO 2003-FR1729	W 20030610

AB A cosmetic composition to fight against the hair whiteness contains an agent mimicking the activity of dopachrome tautomerase (Trp-2). The invention refers moreover to a method for identifying an agent mimicking the activity of Trp-2. Expression of Trp-2 in melanocytes from human hair follicles and epidermis is studied. A hair lotion contained Trp-2 0.5, propylene glycol 20, ethanol 30, and water q.s. 100 g.

ICM A61K007-06

CC 62-4 (Essential Oils and Cosmetics)

ST cosmetic dopachrome tautomerase mimicking agent hair whiteness

- IT Steroids, biological studies
RL: COS (Cosmetic use); PAC (Pharmacological activity); BIOL (Biological study); USES (Uses)
(amino; cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)
- IT Antioxidants
Melanocyte
Microspheres
Shampoos
(cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)
- IT Polyamines
Polysiloxanes, biological studies
RL: COS (Cosmetic use); PAC (Pharmacological activity); BIOL (Biological study); USES (Uses)
(cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)
- IT Amines, biological studies
RL: COS (Cosmetic use); PAC (Pharmacological activity); BIOL (Biological study); USES (Uses)
(diamines; cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)
- IT **Hair**
(follicle; cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)
- IT **Hair** preparations
(gels; cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)
- IT **Hair** preparations
(lotions; cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)
- IT Drug delivery systems
(nanocapsules; cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)
- IT Nanostructures
Spheres
(nanospheres; cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)
- IT Amines, biological studies
RL: COS (Cosmetic use); PAC (Pharmacological activity); BIOL (Biological study); USES (Uses)
(steroidal; cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)
- IT Amines, biological studies
RL: COS (Cosmetic use); PAC (Pharmacological activity); BIOL (Biological study); USES (Uses)
(triamines; cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)
- IT **Hair**
(whiteness; cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)
- IT 9054-89-1, Superoxide dismutase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)
- IT 50-81-7D, Ascorbic acid, derivs. 50-81-7D, Vitamin C,
reaction products with mono- and diesters of cinnamic acid 63-68-3

, Methionine, biological studies 71-00-1, Histidine, biological studies 71-44-3, Spermine 73-22-3, Tryptophane, biological studies 110-60-1, Putrescine 117-39-5, Quercetine 121-79-9, Propyl gallate 124-20-9, Spermidine 529-35-1D, derivs. 621-82-9D, Cinnamic acid, esters, reaction products with vitamin C 3376-24-7 12619-70-4D, Cyclodextrin, derivs. 53177-12-1, Euk-8 53188-07-1, Trolox 60940-34-3, Ebselen 64855-91-0D, derivs. 85153-23-7D, derivs. 187536-23-8D, derivs.

RL: COS (Cosmetic use); PAC (Pharmacological activity); BIOL (Biological study); USES (Uses)

(cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)

IT 130122-81-5, Dopachrome tautomerase

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(mimicking agents; cosmetic composition containing agent mimicking activity

of

dopachrome tautomerase to prevent **hair** whitening)

IT 50-81-7D, Ascorbic acid, derivs. 63-68-3, Methionine, biological studies 124-20-9, Spermidine

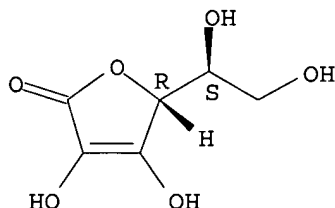
RL: COS (Cosmetic use); PAC (Pharmacological activity); BIOL (Biological study); USES (Uses)

(cosmetic composition containing agent mimicking activity of dopachrome tautomerase to prevent **hair** whitening)

RN 50-81-7 CAPLUS

CN L-Ascorbic acid (8CI, 9CI) (CA INDEX NAME)

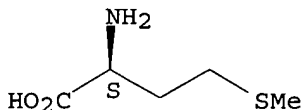
Absolute stereochemistry.



RN 63-68-3 CAPLUS

CN L-Methionine (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 124-20-9 CAPLUS

CN 1,4-Butanediamine, N-(3-aminopropyl)- (8CI, 9CI) (CA INDEX NAME)

$\text{H}_2\text{N}-(\text{CH}_2)_4-\text{NH}-(\text{CH}_2)_3-\text{NH}_2$

REFERENCE COUNT:

22

THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L187 ANSWER 6 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:730528 CAPLUS
 DOCUMENT NUMBER: 135:278003
 TITLE: Compositions and methods for gene therapy
 INVENTOR(S): Vogel, Jean-marie; Boschetti, Egisto
 PATENT ASSIGNEE(S): Biosphere Medical Inc., USA
 SOURCE: PCT Int. Appl., 77 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001072280	A2	200111004	WO 2001-US9618	20010323
WO 2001072280	A3	20020131		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 2003212022	A1	20031113	US 2002-220983	20021212
PRIORITY APPLN. INFO.:			US 2000-191902P	P 20000324
			WO 2001-US9618	W 20010323
AB	The present invention relates to injectable compns. comprising biocompatible, swellable, substantially hydrophilic, non-toxic and substantially spherical polymeric material carriers which are capable of efficiently delivering bioactive therapeutic factor(s) phys. linked to a transfection agent for use in embolization gene therapy. The present invention further relates to methods of embolization gene therapy, particularly for the treatment of angiogenic and non-angiogenic-dependent diseases, using the injectable compns.			
IC	ICM A61K009-00			
CC	63-5 (Pharmaceuticals)			
	Section cross-reference(s): 8			
IT	Leukemia			
	(hairy-cell; compns. and methods for embolization gene therapy)			
IT	7439-89-6, Iron, uses 7439-95-4, Magnesium, uses 7440-09-7, potassium, uses 7440-23-5, Sodium, uses 7440-66-6, Zinc, uses 7440-70-2, Calcium, uses 7664-41-7, Ammonia, uses RL: NUU (Other use, unclassified); USES (Uses) (compns. and methods for embolization gene therapy)			
IT	71-44-3, Spermine 124-20-9, Spermidine 557-75-5D, Vinyl alcohol, polymers 2462-63-7, Dope 4004-05-1, Dope 9002-98-6, Polyethylenimine 9003-01-4D, Polyacrylic acid, derivs. 9003-05-8D, Polyacrylamide, derivs. 24937-78-8, Poly(ethylene vinyl acetate) 25104-18-1, Polylysine 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26100-51-6, Poly(lactic acid) 26913-06-4, Polyethylenimine 38000-06-5, Polylysine 124050-77-7, Transfectam 124076-29-5 127528-05-6 128835-92-7, Lipofectin 137056-72-5, dc-chol 144189-73-1, Dotap 145310-87-8, Transfectace RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses) (compns. and methods for embolization gene therapy)			
IT	7440-66-6, Zinc, uses			

RL: NUU (Other use, unclassified); USES (Uses)
(compns. and methods for embolization gene therapy)

RN 7440-66-6 CAPLUS

CN Zinc (7CI, 8CI, 9CI) (CA INDEX NAME)

Zn

IT 124-20-9, Spermidine

RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(compns. and methods for embolization gene therapy)

RN 124-20-9 CAPLUS

CN 1,4-Butanediamine, N-(3-aminopropyl)- (8CI, 9CI) (CA INDEX NAME)

$\text{H}_2\text{N}-(\text{CH}_2)_4-\text{NH}-(\text{CH}_2)_3-\text{NH}_2$

L187 ANSWER 7 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1996:761926 CAPLUS

DOCUMENT NUMBER: 126:26854

TITLE: S-adenosyl methionine regulation of metabolic pathways
and its use in diagnosis and therapy

INVENTOR(S): Schwartz, Dennis E.; Vermeulen, Nicolaas M. J.; O'Day,
Christine L.

PATENT ASSIGNEE(S): Oridigm Corporation, USA; Schwartz, Dennis E.;
Vermeulen, Nicolaas M., J.; O'day, Christine L.

SOURCE: PCT Int. Appl., 140 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9633703	A2	19961031	WO 1996-US5799	19960425
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN				
US 6020139	A	20000201	US 1995-428963	19950425
CA 2217696	AA	19961031	CA 1996-2217696	19960425
AU 9657156	A1	19961118	AU 1996-57156	19960425
AU 721067	B2	20000622		
EP 824345	A1	19980225	EP 1996-915362	19960425
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 11506426	T2	19990608	JP 1996-532723	19960425
EP 1221615	A2	20020710	EP 2002-5785	19960425
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
US 6596701	B1	20030722	US 1998-930128	19980316
PRIORITY APPLN. INFO.:			US 1995-428963	A 19950425
			US 1995-476447	A2 19950607

EP 1996-915362 A3 19960425
WO 1996-US5799 W 19960425

AB This invention concerns designing anal., diagnostic, and therapeutic protocols and agents for such disease states and conditions through recognition of the central role of S-adenosyl-L-methionine and its metabolic pathways in controlling cell metabolism, cell growth, and intracellular communications.

IC ICM A61K031-00
ICS A61K033-00; A61K038-00; A61K039-00; A61K045-00; A61K045-05; A61K049-00; A61K051-00; C07C321-00; C07C323-00; C07C381-00; C07D211-72; C07D211-84; C07D231-56; C07D235-01; C07H019-00; C07H019-207; C07H021-00; C12N009-00; C12P001-00

CC 1-12 (Pharmacology)
Section cross-reference(s): 9, 14, 63

IT **Alopecia**
(male pattern; adenosylmethionine regulation of metabolic pathways and its use in diagnosis and therapy)

IT 50-81-7, Ascorbic acid, biological studies 58-61-7, Adenosine, biological studies 58-85-5, Biotin 63-68-3, Methionine, biological studies 70-26-8, Ornithine 71-44-3, Spermine 74-79-3, Arginine, biological studies 74-85-1, Ethene, biological studies 87-89-8, myo-Inositol 98-92-0, Nicotinamide 110-60-1, Putrescine 124-20-9, Spermidine 22059-21-8, 1-Aminocyclopropanecarboxylic acid 24346-00-7, S-Adenosyl-L-methionine chloride 29908-03-0, S-Adenosyl-L-methionine 57072-36-3, Queuosine 61912-98-9, Insulin-like growth factor 62229-50-9, Epidermal growth factor 72496-59-4, Queuine 87186-02-5, S-Adenosyl-L-methionine sulfate 106096-93-9, Basic fibroblast growth factor 141436-78-4, Protein kinase C

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(adenosylmethionine regulation of metabolic pathways and its use in diagnosis and therapy)

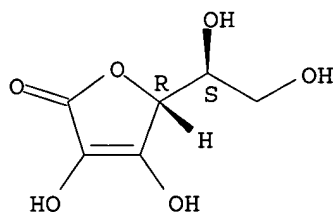
IT 50-81-7, Ascorbic acid, biological studies 58-85-5, Biotin 63-68-3, Methionine, biological studies 124-20-9, Spermidine

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(adenosylmethionine regulation of metabolic pathways and its use in diagnosis and therapy)

RN 50-81-7 CAPLUS

CN L-Ascorbic acid (8CI, 9CI) (CA INDEX NAME)

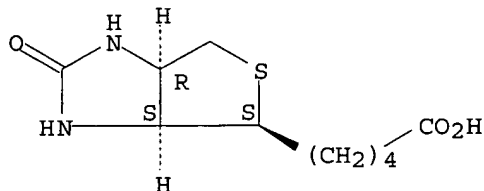
Absolute stereochemistry.



RN 58-85-5 CAPLUS

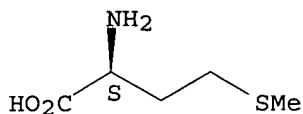
CN 1H-Thieno[3,4-d]imidazole-4-pentanoic acid, hexahydro-2-oxo-, (3aS,4S,6aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 63-68-3 CAPLUS
CN L-Methionine (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 124-20-9 CAPLUS
CN 1,4-Butanediamine, N-(3-aminopropyl)- (8CI, 9CI) (CA INDEX NAME)

$\text{H}_2\text{N}-(\text{CH}_2)_4-\text{NH}-(\text{CH}_2)_3-\text{NH}_2$

L187 ANSWER 8 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1989:131436 CAPLUS

DOCUMENT NUMBER: 110:131436

TITLE: Photoprotective effect of vitamins A and E on polyamine and oxygenated free radical metabolism in **hairless** mouse epidermis

AUTHOR(S): Khettab, Nadine; Amory, Marie Claude; Briand, Georges; Bousquet, Bernard; Combre, Alain; Forlot, Paul; Barey, Marc

CORPORATE SOURCE: Lab. Biochim. Physiol., Fac. Pharm., Nantes, 44035, Fr.

SOURCE: Biochimie (1988), 70(12), 1709-13
CODEN: BICMBE; ISSN: 0300-9084

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The purpose of this study was to confirm the photoprotective effect on skin of vitamins A and E, due to inhibition of polyamine synthesis and production of free radicals. These variables were measured in the lumbar epidermis of the female hairless mouse subjected to UVA + B irradiation. Polyamines were assayed in epidermal homogenate by HPLC, and production of oxygenated free radicals was determined by spectrofluorometric assay of malonyl dialdehyde. It was determined that BHT and vitamin E inhibited production of free

radicals (56 and 60%, resp.) and caused a reduction in polyamine biosynthesis, whereas the inhibitory effect of malonyl dialdehyde induced by vitamin A (30%) had no associated effect on polyamine metabolism

CC 8-6 (Radiation Biochemistry)

IT 71-44-3, Spermine 110-60-1, Putrescine 124-20-9, Spermidine

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL

(Biological study); PROC (Process)
(metabolism of, in skin epidermis, UV radiation effect on)
IT 68-26-8, Vitamin A 1406-18-4, Vitamin E
RL: BIOL (Biological study)
(photoprotection by, of skin epidermis from UV radiation, polyamine and
radicals metabolism in relation to)
IT 124-20-9, Spermidine
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
(Biological study); PROC (Process)
(metabolism of, in skin epidermis, UV radiation effect on)
RN 124-20-9 CAPLUS
CN 1,4-Butanediamine, N-(3-aminopropyl)- (8CI, 9CI) (CA INDEX NAME)

$\text{H}_2\text{N}-(\text{CH}_2)_4-\text{NH}-(\text{CH}_2)_3-\text{NH}_2$

IT 1406-18-4, Vitamin E
RL: BIOL (Biological study)
(photoprotection by, of skin epidermis from UV radiation, polyamine and
radicals metabolism in relation to)
RN 1406-18-4 CAPLUS
CN Vitamin E (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L187 ANSWER 9 OF 11 MEDLINE on STN DUPLICATE 1
ACCESSION NUMBER: 80244653 MEDLINE
DOCUMENT NUMBER: PubMed ID: 6772349
TITLE: Polyamine metabolism in Menkes kinky hair
disease.
AUTHOR: Rennert O M; Chan W Y; Hidalgo H; Cushing W; Griesmann G
SOURCE: Clinica chimica acta; international journal of clinical
chemistry, (1980 May 9) 103 (3) 375-80.
Journal code: 1302422. ISSN: 0009-8981.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198010
ENTRY DATE: Entered STN: 19900315
Last Updated on STN: 20000303
Entered Medline: 19801027

ABSTRACT:

Clinical investigations of the urinary excretion of putrescine and the polyamines spermidine and spermine in a patient with Menkes kinky hair disease are reported. This disorder, characterized by intra- and extracellular copper deficiency, is associated with significant depression of diamine oxidase and monoamine oxidase activity. Urinary excretion of diamine and polyamines, monitored over a 2-month interval in a 4-month old patient with Menkes kinky ***hair*** disease, documented a 3- to 10-fold increase in the excretion of free putrescine, spermidine and spermine as well as the conjugated derivatives of putrescine and spermidine. These observations suggest that abnormalities in diamine and polyamine concentration occur in disease states in which the metabolic transformation of these compounds is impaired.

CONTROLLED TERM: Check Tags: Male
Amine Oxidase (Copper-Containing): ME, metabolism

*Brain Diseases, Metabolic: UR, urine
Copper: ME, metabolism
Humans
Infant
*Menkes Kinky Hair Syndrome: UR, urine
Putrescine: ME, metabolism
*Putrescine: UR, urine
Research Support, U.S. Gov't, P.H.S.
Spermidine: ME, metabolism
*Spermidine: UR, urine
Spermine: ME, metabolism
*Spermine: UR, urine
Time Factors

CAS REGISTRY NO.: 110-60-1 (Putrescine); 124-20-9 (Spermidine);
71-44-3 (Spermine); 7440-50-8 (Copper)
CHEMICAL NAME: EC 1.4.3.6 (Amine Oxidase (Copper-Containing))

L187 ANSWER 10 OF 11 MEDLINE on STN
ACCESSION NUMBER: 2001468952 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11513732
TITLE: Concurrent overexpression of ornithine decarboxylase and spermidine/spermine N(1)-acetyltransferase further accelerates the catabolism of hepatic polyamines in transgenic mice.
AUTHOR: Suppola S; Heikkinen S; Parkkinen J J; Uusi-Oukari M; Korhonen V P; Keinänen T; Alhonen L; Janne J
CORPORATE SOURCE: A.I. Virtanen Institute for Molecular Sciences, University of Kuopio, P.O. Box 1627, FIN-70211 Kuopio, Finland.
CONTRACT NUMBER: CA-76428 (NCI)
SOURCE: Biochemical journal, (2001 Sep 1) 358 (Pt 2) 343-8.
Journal code: 2984726R. ISSN: 0264-6021.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200110
ENTRY DATE: Entered STN: 20010830
Last Updated on STN: 20011008
Entered Medline: 20011004

ABSTRACT:

We have generated a hybrid transgenic mouse line overexpressing both ornithine decarboxylase (ODC) and spermidine/spermine N(1)-acetyltransferase (SSAT) under the control of the mouse metallothionein (MT) I promoter. In comparison with singly transgenic animals overexpressing SSAT, the doubly transgenic mice unexpectedly displayed much more striking signs of activated polyamine catabolism, as exemplified by a massive putrescine accumulation and an extreme reduction of hepatic spermidine and spermine pools. Interestingly, the profound depletion of the higher polyamines in the hybrid animals occurred in the presence of strikingly high ODC activity and tremendous putrescine accumulation. Polyamine catabolism in the doubly transgenic mice could be enhanced further by administration of zinc or the polyamine analogue N(1),N(11)-diethylnorspermine. In tracer experiments with [(14)C]spermidine we found that, in comparison with syngenic animals, both MT-ODC and MT-SSAT mice possessed an enhanced efflux mechanism for hepatic spermidine. In the MT-ODC animals this mechanism apparently operated in the absence of measurable SSAT activity. In the hybrid animals, spermidine efflux was stimulated further in comparison with the singly transgenic animals. In spite of a dramatic accumulation of putrescine and a profound reduction of the spermidine and spermine pools, only marginal changes were seen in the level of ODC antizyme. Even though the hybrid animals showed no liver or other organ-specific overt

toxicity, except an early and permanent loss of **hair**, their life span was greatly reduced. These results can be understood from the perspective that catabolism is the overriding regulatory mechanism in the metabolism of the polyamines and that, even under conditions of severe depletion of spermidine and spermine, extremely high tissue pools of putrescine are not driven further to replenish the pools of the higher polyamines.

CONTROLLED TERM: *Acetyltransferases: GE, genetics
 Acetyltransferases: ME, metabolism
 *Acetyltransferases: PH, physiology
 Animals
 Chimera
 *Liver: ME, metabolism
 Longevity
 Mice
 Mice, Transgenic
 *Ornithine Decarboxylase: GE, genetics
 Ornithine Decarboxylase: ME, metabolism
 *Ornithine Decarboxylase: PH, physiology
 *Polyamines: ME, metabolism
 Proteins: PH, physiology
 Research Support, Non-U.S. Gov't
 Research Support, U.S. Gov't, P.H.S.
 Spermidine: ME, metabolism
 Spermine: AA, analogs & derivatives
 Spermine: PD, pharmacology
 Zinc: PD, pharmacology

CAS REGISTRY NO.: 121749-39-1 (N(1),N(11)-diethylnorspermine); **124-20-9**
 (**Spermidine**); 71-44-3 (Spermine); **7440-66-6**
 (**Zinc**)

CHEMICAL NAME: 0 (Polyamines); 0 (Proteins); 0 (ornithine decarboxylase
 antizyme); EC 2.3.1. (Acetyltransferases); EC 2.3.1.57
 (spermidine acetyltransferase); EC 4.1.1.17 (Ornithine
 Decarboxylase)

L187 ANSWER 11 OF 11 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights
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ACCESSION NUMBER: 2005336745 EMBASE

TITLE: Low-dose methotrexate: A mainstay in the treatment of
 rheumatoid arthritis.

AUTHOR: Cronstein B.N.

CORPORATE SOURCE: Dr. B.N. Cronstein, Department of Medicine, NYU School of
 Medicine, 550 First Ave., New York, NY 10016, United
 States. cronsb01@med.nyu.edu

SOURCE: Pharmacological Reviews, (2005) Vol. 57, No. 2, pp.
 163-172.

Refs: 142

ISSN: 0031-6997 CODEN: PAREAQ

URL: <http://pharmrev.aspetjournals.org/cgi/reprint/57/2/163>

COUNTRY: United States; Journal; General Review

FILE SEGMENT: 022 Human Genetics
 030 Pharmacology
 031 Arthritis and Rheumatism
 037 Drug Literature Index
 038 Adverse Reactions Titles

LANGUAGE: English

SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 20050901

Last Updated on STN: 20050901

ABSTRACT: Methotrexate administered weekly in low doses is a mainstay in the
 therapy of rheumatoid arthritis. Although originally developed as a folate

antagonist for the treatment of cancer, its mechanism of action in the therapy of rheumatoid arthritis remains less clear. Several mechanisms have been proposed including inhibition of T cell proliferation via its effects on purine and pyrimidine metabolism, inhibition of transmethylation reactions required for the prevention of T cell cytotoxicity, interference with glutathione metabolism leading to alterations in recruitment of monocytes and other cells to the inflamed joint, and promotion of the release of the endogenous anti-inflammatory mediator adenosine. These mechanisms of action and the role of methotrexate in the suppression of rheumatoid arthritis are reviewed.

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CONTROLLED TERM: Medical Descriptors:
*rheumatoid arthritis: DT, drug therapy
low drug dose
drug mechanism
T lymphocyte
cell proliferation
drug effect
purine metabolism
pyrimidine metabolism
methylation
cytotoxicity
glutathione metabolism
monocyte
drug safety
drug efficacy
drug bioavailability
drug half life
drug tolerability
gastrointestinal toxicity: SI, side effect
stomatitis: SI, side effect
alopecia: SI, side effect
bone marrow suppression: SI, side effect
liver function
side effect: DT, drug therapy
side effect: SI, side effect
interstitial pneumonia: SI, side effect
lung fibrosis: SI, side effect
liver toxicity: SI, side effect
bone marrow toxicity: SI, side effect
oxidation reduction reaction
central nervous system disease: DT, drug therapy
central nervous system disease: SI, side effect
pharmacogenetics
genetic predisposition
human
clinical trial
review
priority journal
Drug Descriptors:
*methotrexate: AE, adverse drug reaction
*methotrexate: CT, clinical trial
*methotrexate: AD, drug administration
*methotrexate: CB, drug combination
*methotrexate: DO, drug dose
*methotrexate: IT, drug interaction
*methotrexate: DT, drug therapy
*methotrexate: IM, intramuscular drug administration
*methotrexate: PO, oral drug administration

*methotrexate: PK, pharmacokinetics
 *methotrexate: PD, pharmacology
 folic acid antagonist: DT, drug therapy
 folic acid antagonist: PD, pharmacology
 glutathione: EC, endogenous compound
 adenosine
 nonsteroid antiinflammatory agent: CB, drug combination
 nonsteroid antiinflammatory agent: IT, drug interaction
 nonsteroid antiinflammatory agent: DT, drug therapy
 nonsteroid antiinflammatory agent: PD, pharmacology
 folic acid: CB, drug combination
 folic acid: DT, drug therapy
 folic acid: PD, pharmacology
 folinic acid: CB, drug combination
 folinic acid: DO, drug dose
 folinic acid: DT, drug therapy
 folinic acid: PD, pharmacology
 acetylsalicylic acid: AE, adverse drug reaction
 acetylsalicylic acid: CB, drug combination
 acetylsalicylic acid: CM, drug comparison
 acetylsalicylic acid: IT, drug interaction
 acetylsalicylic acid: DT, drug therapy
 acetylsalicylic acid: PD, pharmacology
 corticosteroid: AE, adverse drug reaction
 corticosteroid: CB, drug combination
 corticosteroid: CM, drug comparison
 corticosteroid: IT, drug interaction
 corticosteroid: DT, drug therapy
 corticosteroid: PD, pharmacology
 salazosulfapyridine: AE, adverse drug reaction
 salazosulfapyridine: CB, drug combination
 salazosulfapyridine: CM, drug comparison
 salazosulfapyridine: IT, drug interaction
 salazosulfapyridine: DT, drug therapy
 salazosulfapyridine: PD, pharmacology
 hydroxychloroquine: AE, adverse drug reaction
 hydroxychloroquine: CB, drug combination
 hydroxychloroquine: CM, drug comparison
 hydroxychloroquine: IT, drug interaction
 hydroxychloroquine: DT, drug therapy
 hydroxychloroquine: PD, pharmacology
 tumor necrosis factor antibody: AE, adverse drug reaction
 tumor necrosis factor antibody: CB, drug combination
 tumor necrosis factor antibody: CM, drug comparison
 tumor necrosis factor antibody: IT, drug interaction
 tumor necrosis factor antibody: DT, drug therapy
 tumor necrosis factor antibody: PD, pharmacology
 leflunomide: AE, adverse drug reaction
 leflunomide: CB, drug combination
 leflunomide: IT, drug interaction
 leflunomide: DT, drug therapy
 leflunomide: PD, pharmacology
 spermine: EC, endogenous compound
spermidine: EC, endogenous compound
 adenosine receptor blocking agent: DT, drug therapy
 adenosine receptor blocking agent: PD, pharmacology
 (methotrexate) 15475-56-6, 59-05-2, 7413-34-5;
 (glutathione) 70-18-8; (adenosine) 58-61-7; (folic acid)
 59-30-3, 6484-89-5; (folinic acid) 58-05-9,
 68538-85-2; (acetylsalicylic acid) 493-53-8, 50-78-2,

CAS REGISTRY NO.:

53663-74-4, 53664-49-6, 63781-77-1; (salazosulfapyridine)
599-79-1; (hydroxychloroquine) 118-42-3, 525-31-5; (tumor
necrosis factor antibody) 162774-06-3; (leflunomide)
75706-12-6; (spermine) 306-67-2, 71-44-3; (
spermidine) 124-20-9, 334-50-9

CHEMICAL NAME:

Aspirin

=>